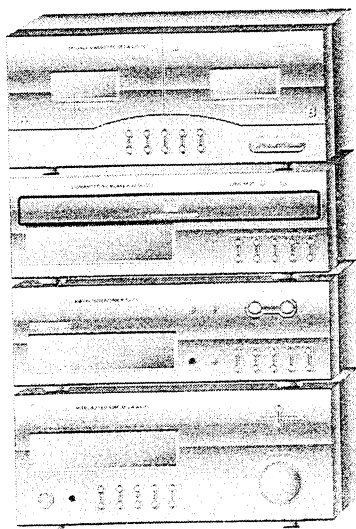


SERVICE MANUAL

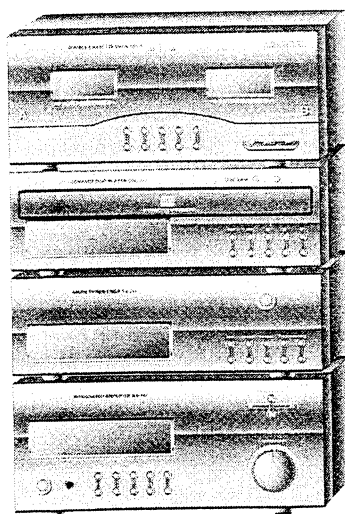
AUDIO & VIDEO MINI COMPONENT SYSTEM

P-757



- AV-757
STEREO INTEGRATED AMPLIFIER
- TX-757
FM/AM STEREO TUNER & TIMER
- CDC-757/ VCDC-757
MULTI COMPACT DISC PLAYER
/ VIDEO COMPACT DISC PLAYER
- DD-757
STEREO DOUBLE CASSETTE DECK

P-747



- AX-747
STEREO INTEGRATED AMPLIFIER
- TX-747
FM/AM STEREO TUNER & TIMER
- CDC-757/ VCDC-757
MULTI COMPACT DISC PLAYER
/ VIDEO COMPACT DISC PLAYER
- DD-757
STEREO DOUBLE CASSETTE DECK

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■ AV-757/AX-747 ■

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▪ AV-757/AX-747 ▪

SAFETY PRECAUTION

WARNING

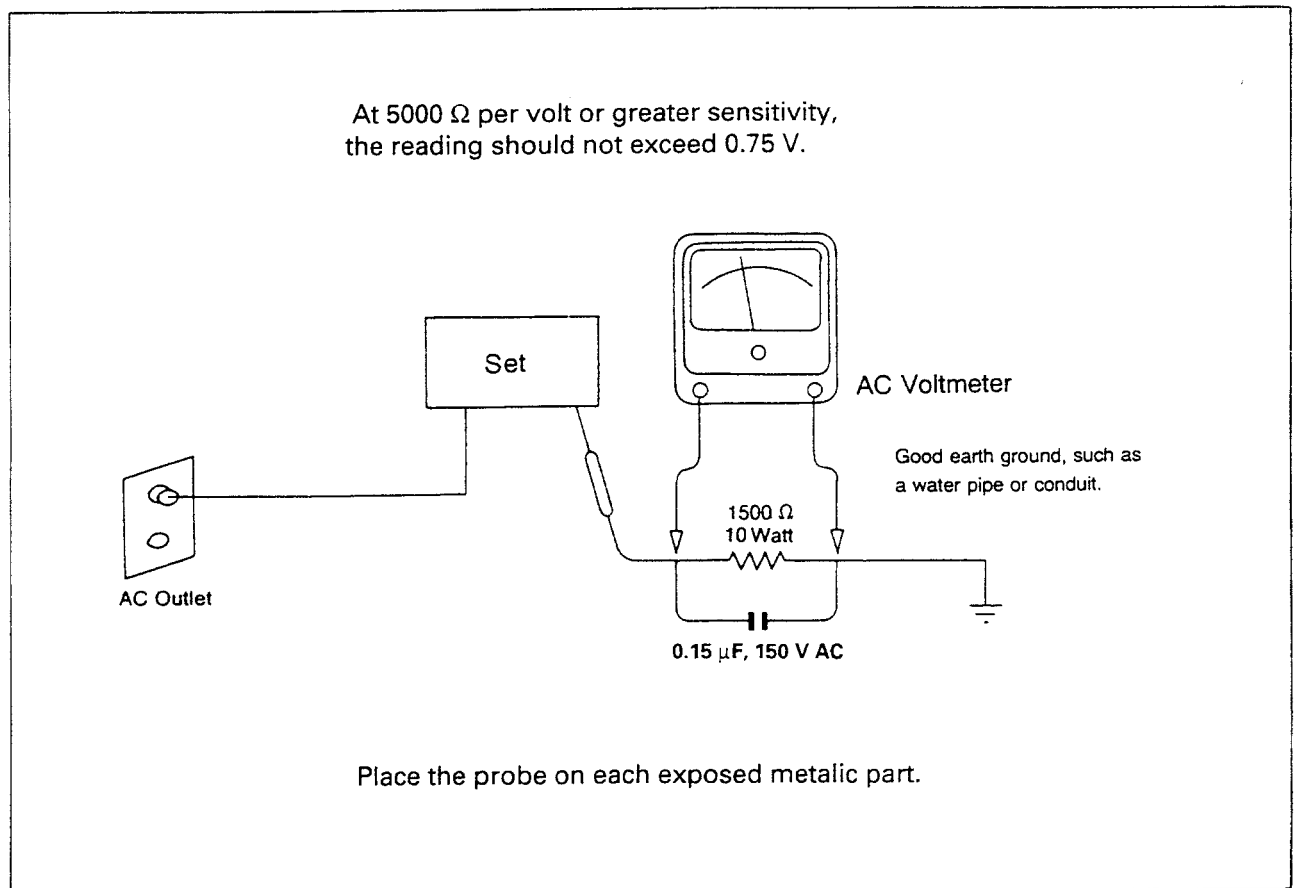
Before servicing this unit, familiarize yourself with the following precautions:

1. Many electrical and mechanical parts in this chassis have special safety characteristics that often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by ⚠ in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

2. Before returning the set to the customer, always do an AC leakage current check on the

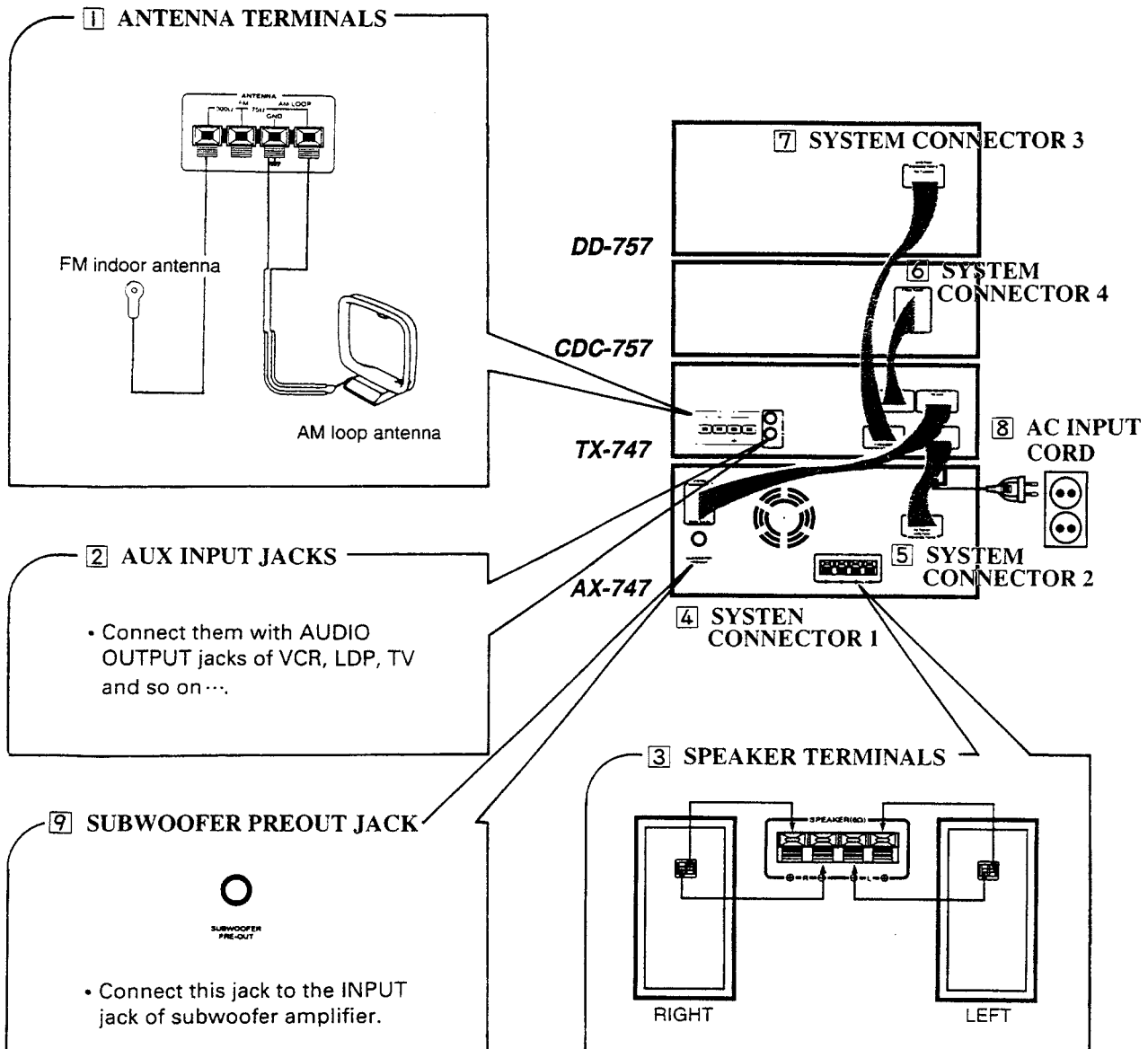
exposed metal parts of the cabinet, such as terminals, screw heads, and metal overlays, to be sure the set is safe to operate danger of electrical shock. Plug the AC line cord directly into a 120 V AC outlet (120 V AC version only). (Do not use a line isolation transformer during this check.) Be sure your AC voltmeter has a sensitivity of $5000\ \Omega$ per volt or greater. Then connect a $1500\ \Omega$ 10 watt resistor, paralleled by a $0.15\ \mu\text{F}$ 150 V AC capacitor, between a known good earth ground (such as a water pipe, or conduit) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of a $1500\ \Omega$ resistor and a $0.15\ \mu\text{F}$ capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 V RMS. This corresponds to 0.2 mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



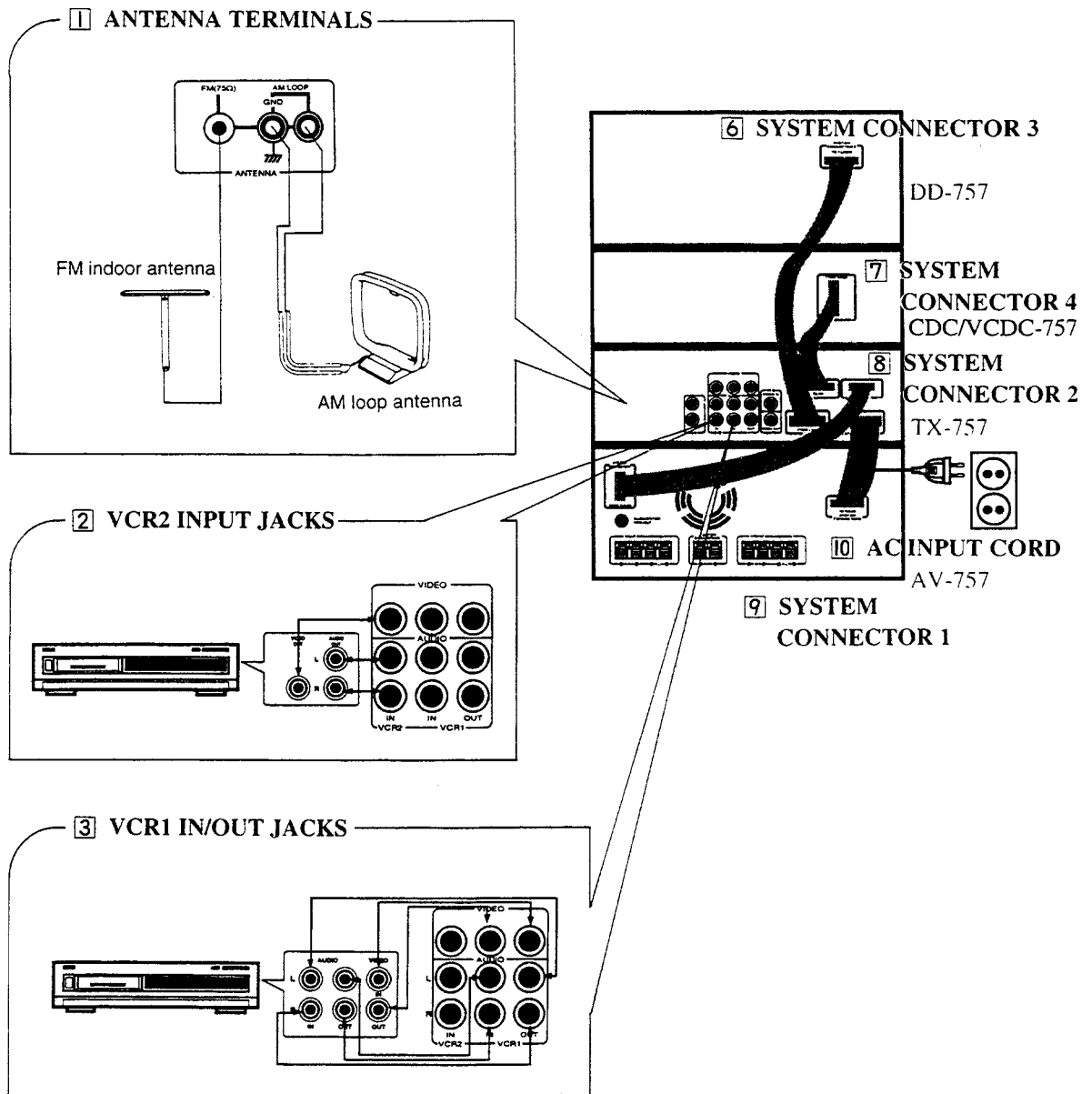
SYSTEM CONNECTIONS

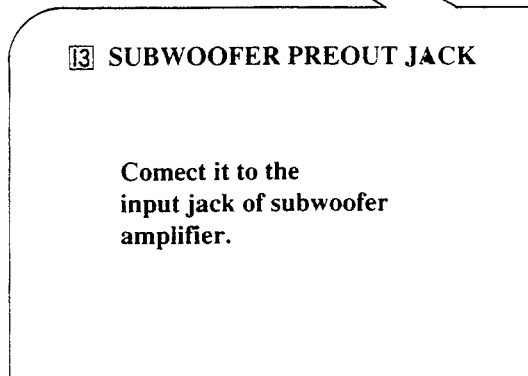
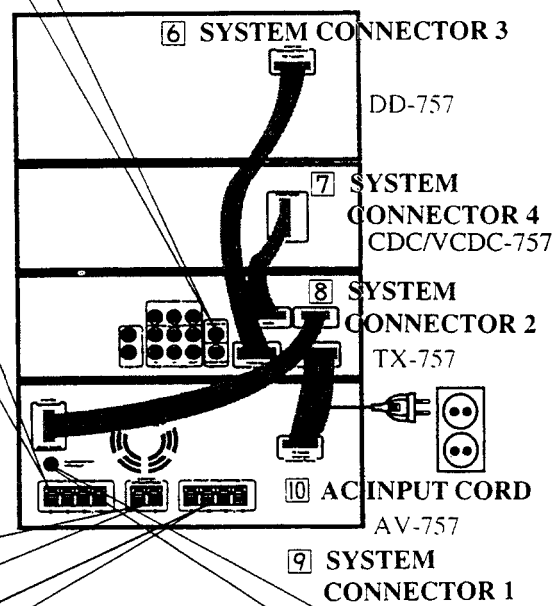
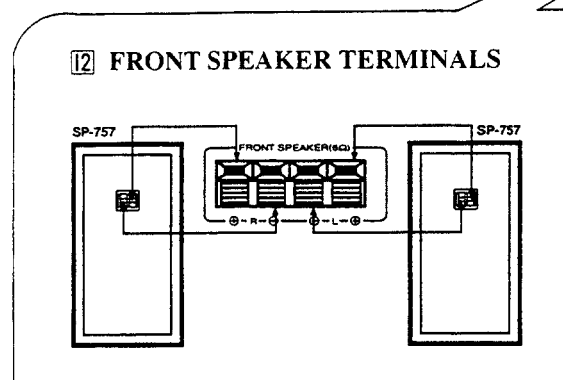
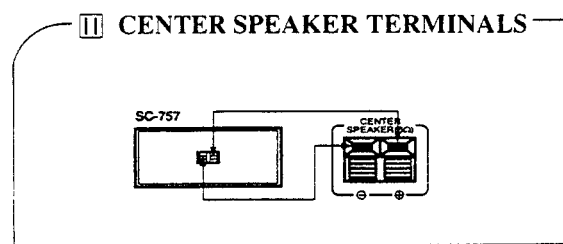
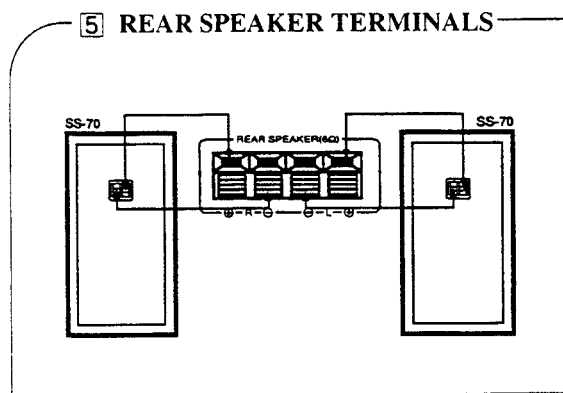
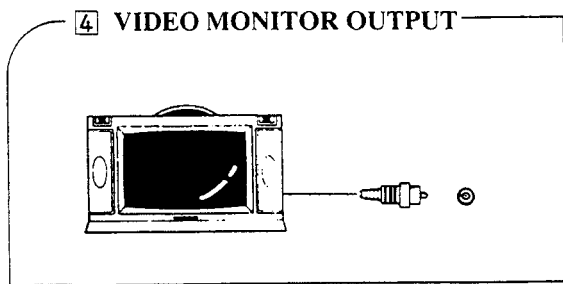
- Do not plug the AC input cord the AC outlet when plugging and unplugging connection cords.
- Make connections firmly and correctly according to the channel (Left and Right), polarity (+ and -) and connector(system 1 to 4). If not, it can cause loss of sound, noise or damage to unit.
- Be sure to use speakers of impedance 6 Ω .
- Place the AM loop antenna as far as possible from this system, TV, speaker cords and AC input cord and set it to a direction for the best reception.
- If the reception is poor with the AM loop antenna, an AM outdoor antenna can be used without the AM loop antenna.
- If the sound quality is poor with the FM indoor antenna, connect an FM outdoor antenna instead of the FM indoor antenna.
- If the electricity fails or the AC input cord is leaved unplugged for more then 15 days, the memorized contents are all cleared. So you should memorize them again.

■ P-747 ■



■ P-757 ■





SPECIFICATIONS

FRONT SECTION

Description	Unit	Nominal	Limit
RMS. output power <stereo mode> Input: VIDEO, THD < 0.5%, 6 ohms load both channels driven at 1 kHz	W	≥ 53	≥ 50
<surround mode: AV-757 only> THD < 0.5%, 6 ohms load single channels driven at 1 kHz	W	≥ 33	≥ 30
Total Harmonic Distortion	%	≤ 0.2	≤ 0.2
Signal to Noise Ratio (IHF-A WTD), Input shorted	dB	≥ 85	≥ 80
Channel Separation with 4.7 kohms terminated. Input: VIDEO, 1 kHz	dB	≥ 50	≥ 50
Channel Unbalance, Input: VIDEO, 1 kHz	dB	≤ 1	≤ 2
Frequency Response at -3 dB	Hz	10 ~ 60 k	20 ~ 40 k
X-Bass compensation at 80 Hz	dB	8 ± 2	8 ± 3
EQ Control (60, 150, 400, 1 k, 2.4 k, 6 k, 15 k) Hz	dB	10 ± 2	10 ± 3
Headphone Output at Rated PWR, 50 W Headphone Impedance: 68 ohms	mV	1200 ± 200	1200 ± 300

CENTER SECTION (AV-757 ONLY)

Description	Unit	Nominal	Limit
RMS. output power THD < 0.5%, 6 ohms, 1 kHz Only center channel driven	W	≥ 33	≥ 30
Signal to Noise Ratio (IHF-A WTD), Input shorted Input: 350 mV	dB	≥ 78	≥ 73
Frequency Response at -3 dB, Wide mode	Hz	20 ~ 18 k	50 ~ 15 k

REAR SECTION (AV-757 ONLY)

Description	Unit	Nominal	Limit
RMS output power THD < 0.7%, 12 ohms load Only rear channel driven at 1 kHz	W	≥ 18	≥ 15
Signal to Noise Ratio (IHF-A WTD), Input shorted Input: 350 mV, Delay time: 20 ms	dB	≥ 85	≥ 80
Frequency Response at -3 dB	Hz	80 ~ 7 k	100 ~ 6 k

General

Power consumption

Model \ Version	A	D	PT INDO	KS
P-747		230 W	260 W	230 W
P-757	140 W	350 W	380 W	240 W

Dimensions (HxWxD)

AV-757/AX-747: 274 × 117 × 280 mm (10-3/4 × 4-11/16 × 11 inches)
 DD-757: 274 × 117 × 280 mm (10-3/4 × 4-11/16 × 11 inches)
 TX-757/TX-747: 274 × 87 × 280 mm (10-3/4 × 3-3/7 × 11 inches)
 CDC-757/VCDC-757: 274 × 87 × 320 mm
 (10-3/4 × 3-3/7 × 12-10/16 inches)

Weight (Net)

(AV-757+DD-757+TX-757+CDC-757/VCDC-757): 14.7 kg (32.407 lbs)
(AX-747+DD-757+TX-747+CDC-757/VCDC-757): 14.7 kg (32.407 lbs)

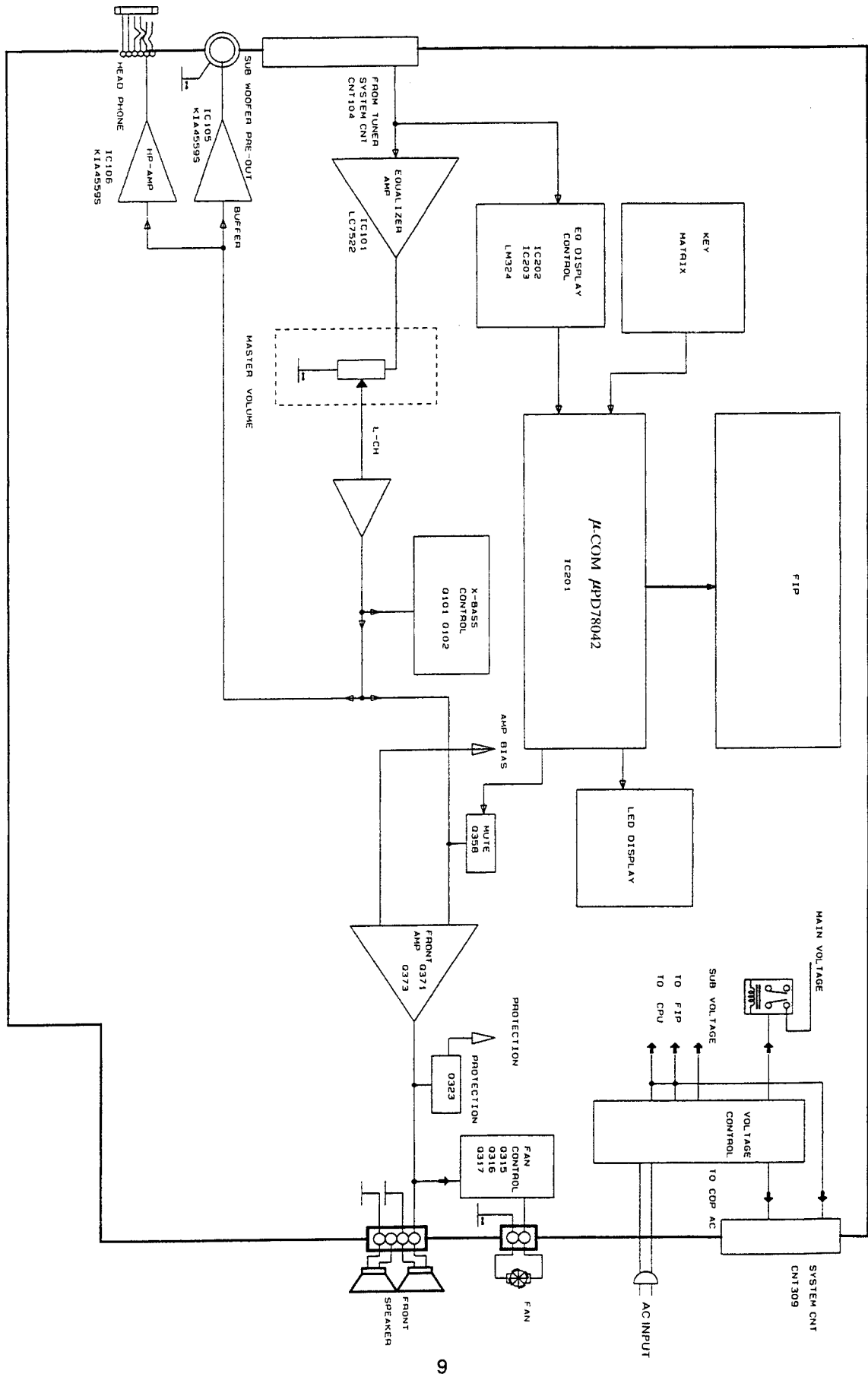
Power Supplies

A: 120 V 60 Hz, USA & Canada version
D: 230 V 50 Hz, Europe version
B: 110/220 V 50/60 Hz, Multi area version (PT INDO)
KS: 220 V 60 Hz, Korea version

Note : Nominal specs represent the design specs. All units should be able to approximate these. Some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable ; in no case should a unit fail to meet limit specs. This manual is based on the EUROPE Standard wiring diagram, and information on regional component variations through use of parts list. Design and specifications are subject to change without notice for improvement.

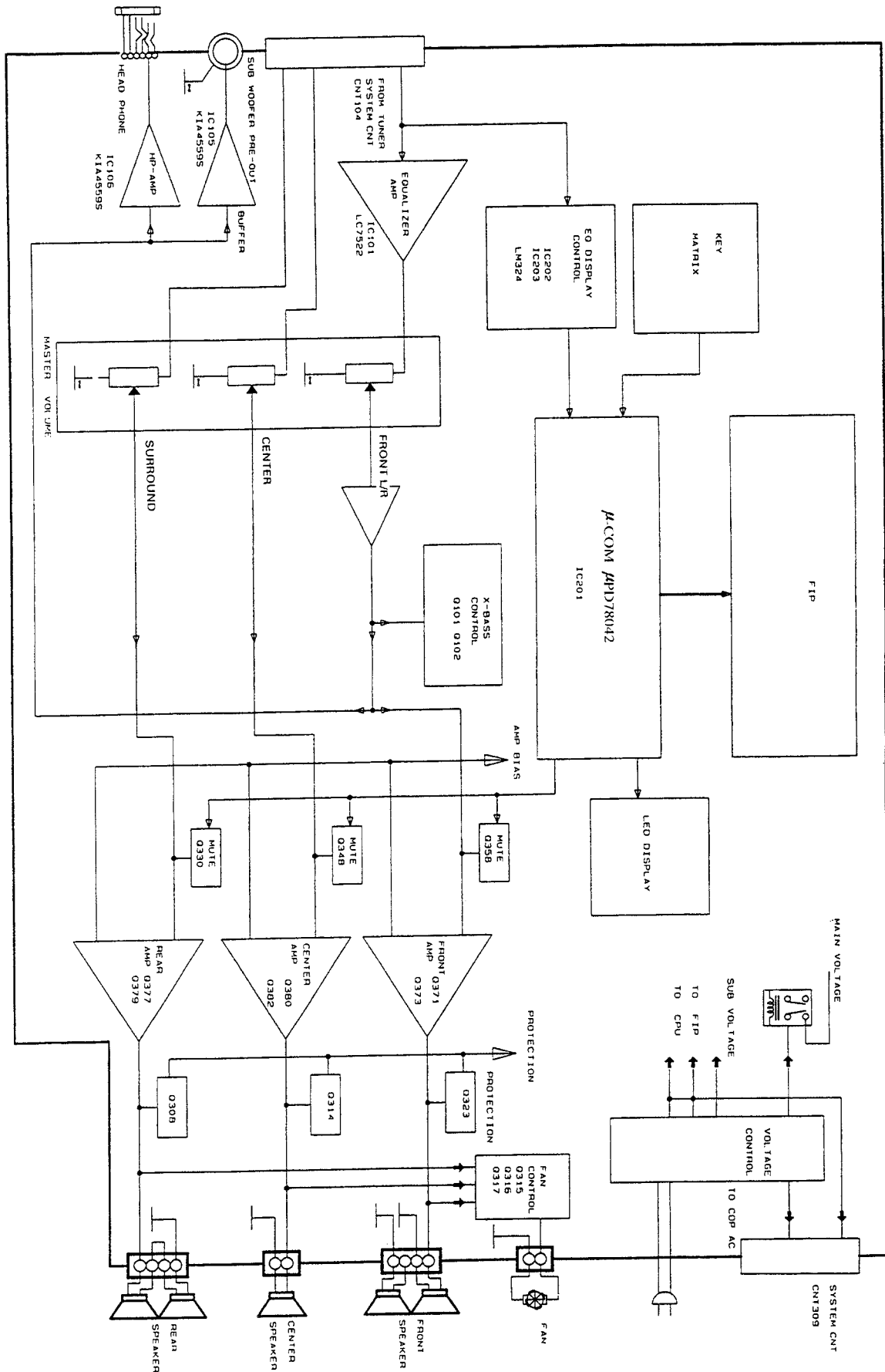
BLOCK DIAGRAM I

Model No. : AX-747



BLOCK DIAGRAM II

Model No. : AV-757



DISASSEMBLY PROCEDURES

REFER TO PAGES 17 AND 24.

1 COVER TOP REMOVAL

Remove 6 screws **a** and then remove the Cover Top **2**.

2 FRONT PANEL ASSEMBLY REMOVAL

1. Remove the Cover Top **2**, referring to the previous step **1**.
2. Remove the Card Cable from wafer (CNT303) on the Main P.C.Board (PCB3).
3. Remove the Card Cable from wafer (CNT101) on the Volume P.C.Board (PCB4).
4. Disconnect (CNT102) from the EQ P.C.Board (PCB1).
5. Remove 7 screws **b** and then remove the Front Panel Assembly **AA**.

3 VOLUME P.C.BOARD (PCB4) REMOVAL.

1. Remove the Cover Top **2**, referring to the previous step **1**.
2. Remove the Front Panel Assembly **AA**, referring to the previous step **2**.
3. Disconnect (CNT501) from the Volume P.C. Board (PCB4).
4. Pull out the Volume Knob **12** with Volume LED P.C.Board (PCB6).
5. Remove 2 screws **c** and then remove the Volume P.C.Board (PCB4).

4 FRONT P.C.BOARD (PCB2) REMOVAL

1. Remove the Cover Top **2**, referring to the previous step **1**.
2. Do steps **2** and **3**.
3. Remove 7 screws **d** and then remove the Front P.C.Board (PCB2) by pressing the hooks around it outward.

5 HEADPHONE P.C.BOARD (PCB5) REMOVAL

1. Remove the Cover Top **2**, referring to the previous step **1**.
2. Remove the Front Panel Assembly **AA**, referring to the previous step **2**.
3. Remove a screw **e** and then remove the Headphone P.C.Board (PCB5).

6 EQ P.C.BOARD (PCB1) REMOVAL

1. Remove the Cover Top **2**, referring to the previous step **1**.
2. Remove the Card Cable from wafer (CNT101) on the EQ P.C.Board (PCB1).

3. Disconnect (CNT102) from the EQ P.C.Board (PCB1).

4. Remove a screw **f** and then remove the EQ P.C.Board (PCB1).

7 VOLTAGE SELECTOR P.C.BOARD (PCB7) REMOVAL

1. Remove the Cover Top **2**, referring to the previous step **1**.
2. Disconnect (CNT801 and CNT802) from the Voltage Selector P.C.Board (PCB7).
3. Remove a screw **g** and then remove the Voltage Selector P.C.Board (PCB7).

8 CHASSIS BACK REMOVAL

1. Remove the Cover Top **2**, referring to the previous step **1**.
2. Disconnect (CNT306 and CNT309) from the Main P.C.Board (PCB3).
3. Remove 12 screws **h** and then remove the Chassis Back **27**. (at AV-757)
Remove 8 screws **h** and then remove the Chassis Back **27**. (at AX-747)

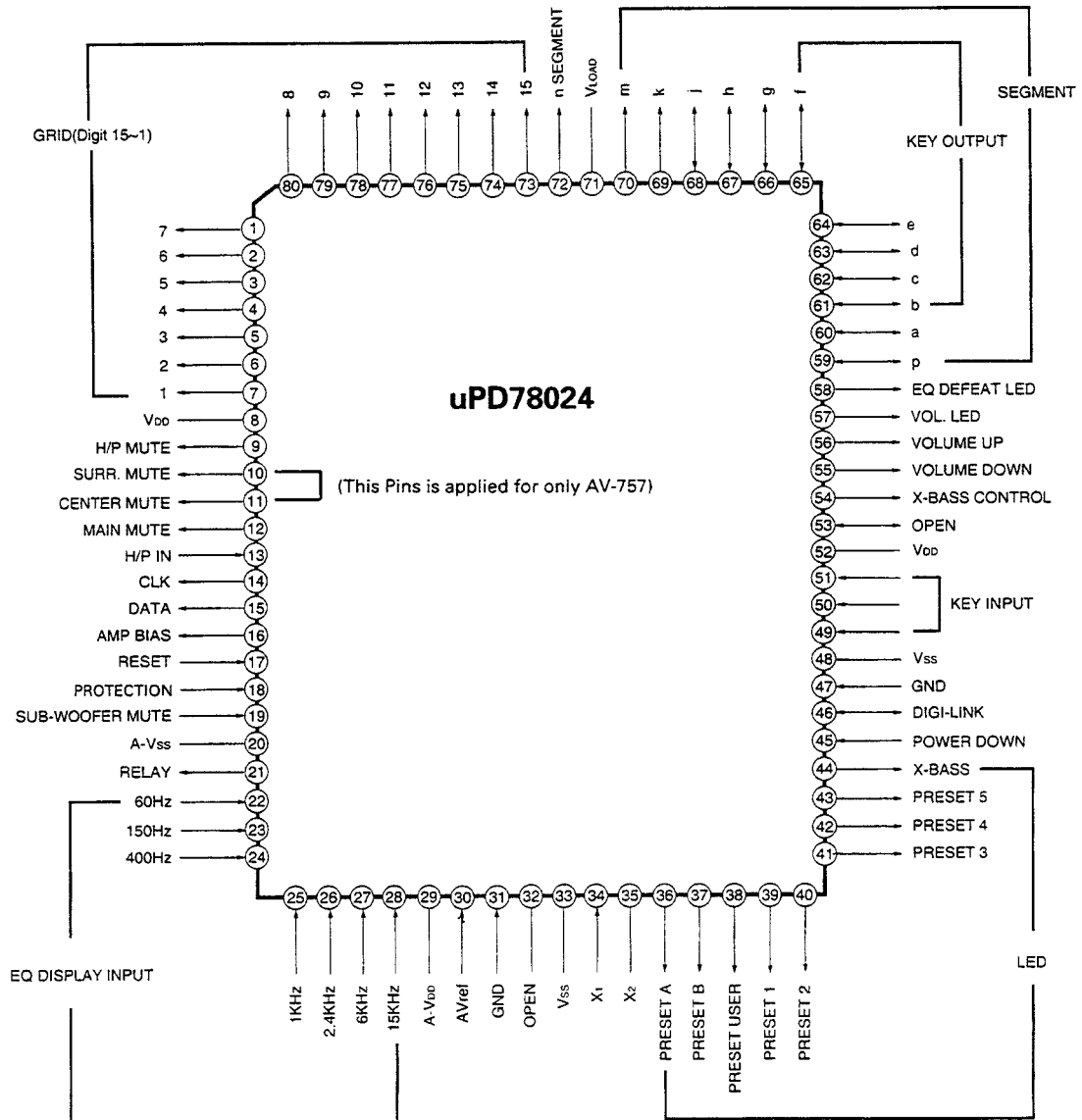
9 MAIN P.C.BOARD (PCB3) REMOVAL

1. Remove the Cover Top **2**, referring to the previous step **1**.
2. Do steps **6** and **8**.
3. Remove Card cable from wafer (CNT308) on the Main P.C.Board (PCB3).
4. Disconnect (CNT301 and CNT302) from the Main P.C.Board (PCB3).
5. Remove 3 screws **i**.
6. Remove the Fastener **22** and then remove the Main P.C.Board (PCB3).

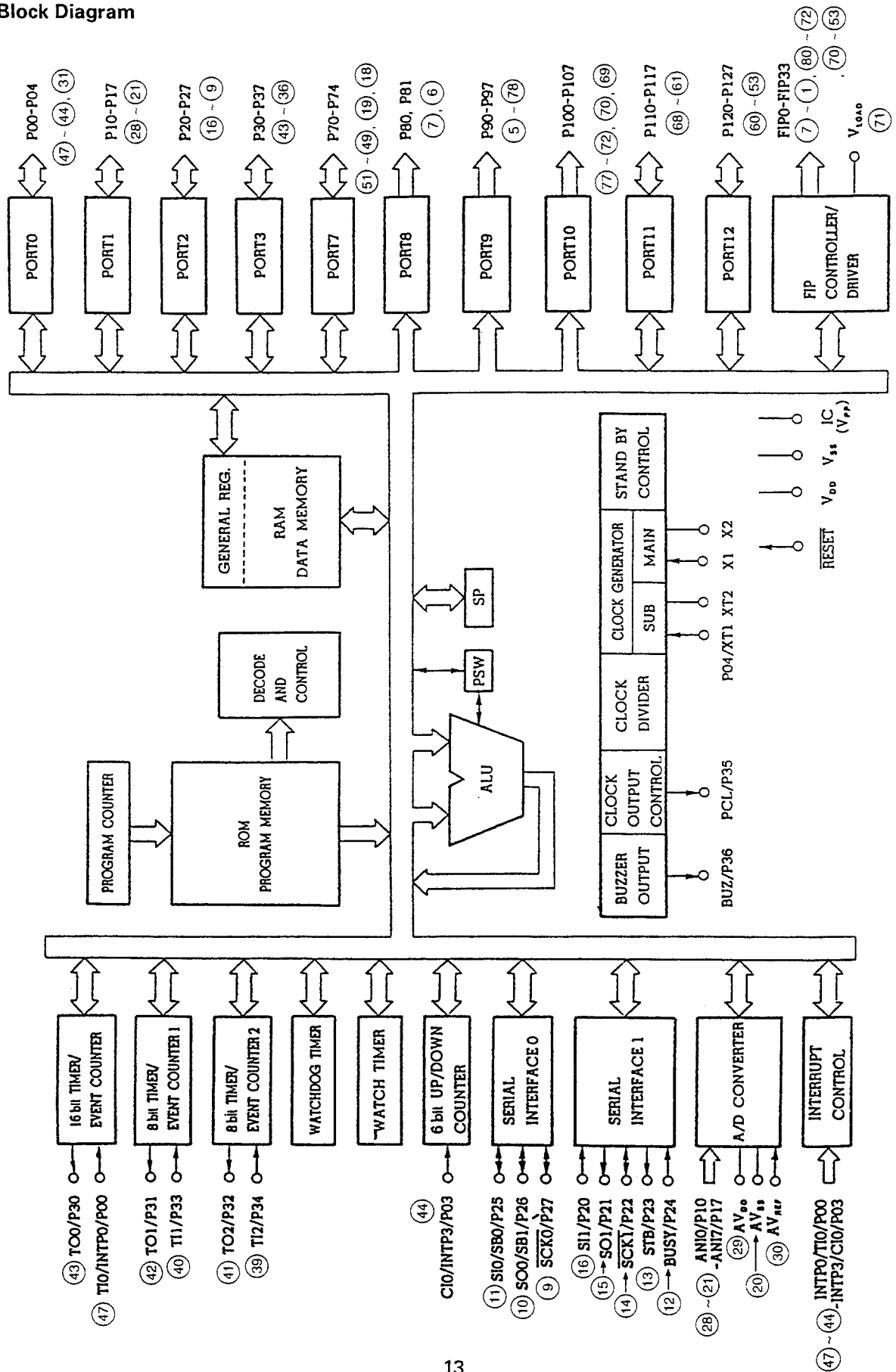
CIRCUIT DESCRIPTION

CPU(IC201):μPD78042

1. Pin Description



2. Block Diagram



3. Input and Output Terminal Functions

Pin No.	Symbol	Description
1~7	DIGIT 7~DIGIT 1	Output for grid.
8	Vdd	+5 V power supply.
9	H/P MUTE	Output for headphone mute. Output, high level under the following conditions. 1. When power is turned on or off. 2. When headphone plug is inserted. 3. When "-∞ mute signal" is received from the commander. 4. When function is changed.
10	SURR. MUTE <AV-757 ONLY>	Output for surround mute. Output, low level under the following conditions. 1. When power is turned off. 2. When headphone plug is inserted. 3. When "-∞ mute signal" is received from the commander. 4. When function is changed. 5. When surround mode is turned off.
11	CENTER MUTE <AV-757 ONLY>	Output for center mute. Output, low level under the following conditions. 1. When power is turned off. 2. When headphone plug is inserted. 3. When "-∞ mute signal" is received from the commander. 4. When function is changed. 5. When center mode is turned off.
12	MAIN MUTE	Output for left and right channels mute. Output, low level under the following conditions. 1. When power is turned off. 2. When headphone plug is inserted. 3. When "-∞ mute signal" is received from the commander. 4. When function is changed.
13	H/P IN	Input for detecting headphone. When headphone is plugged or unplugged, input is high or low level.
14/15	CLK/DATA	CLK/DATA output to LC7522.
16	AMP BIAS	Output for bias control. When 3 seconds elapses after "power on", "H" and at "power off", "L".
17	RESET	Input to reset u-com.
18	PROTECTION	Input for protection. At "protection on", "L" and at "protection off", "H".
19	SUBWOOFER MUTE	Output for subwoofer preout mute. Output, low level under the following conditions. 1. When power is turned on or off. 2. When function is changed. 3. When "-∞ mute signal" is received from the commander. 4. When headphone plug is inserted.
20	A-Vss	This pin provides the analog ground potential.
21	RELAY	Output for relay control. At "power on", "H" and at "power off", "L".
22~28	EQ DISPLAY INPUT	Input for EQ display.
29	A-Vdd	+5 V power supply.
30	A-Vref	Reference voltage.
31	GND	Ground

Pin No.	Symbol	Description
32	OPEN	Not used !
33	Vss	This pin provides the ground potential.
34/35	X1/X2	Input and output for crystal oscillator.
36 ~ 38	PRESET A,B USER LED	Output to light up preset A, B or user LED. When selecting the desired mode, the corresponding output is "H".
39 ~ 43	PRESET 1,2,3,4,5 LED	Output to light up preset 1, 2, 3, 4 or 5 LED. When selecting the desired mode, the corresponding output is "H".
44	X-BASS LED	Output to light up X-BASS LED. At "x-bass on", "H" and at "x-bass off", "L".
45	P/D	Input for power down. (At "L", it is active)
46	DIGI-LINK	Input/Output for controlling digi-link.
47	GND	Ground
48	Vss	This pin provides the ground potential.
49 ~ 51	KEY INPUT	Input data for key scan.
52	Vdd	+5 V power supply.
53	OPEN	Not used !
54	X-BASS CONTROL	Output for X-BASS control. At "x-bass on", "L" and "x-bass off", "H".
55/56	VOL. UP/DOWN	Output to control volume motor.
57	VOL. LED	Output to light up volume LED. At "power on", "H", and at "power off", "L".
58	EQ DEFEAT LED	Output to light up EQ defeat LED. At "EQ defeat on", "H" and at "EQ defeat off", "L".
59	SEG p	Output for segment.
60	SEG a	Output for segment.
61 ~ 65	SEG b ~ SEG f	Output, for segment, and data output for key scan.
66 ~ 70	SEG g ~ SEG m	Output for segment.
71	Vload	-30 V power supply of the FL controller.
72	SEG n	Output for segment.
73 ~ 80	DIGIT 15 ~ DIGIT 8	Output for grid.

MECHANICAL PARTS LIST

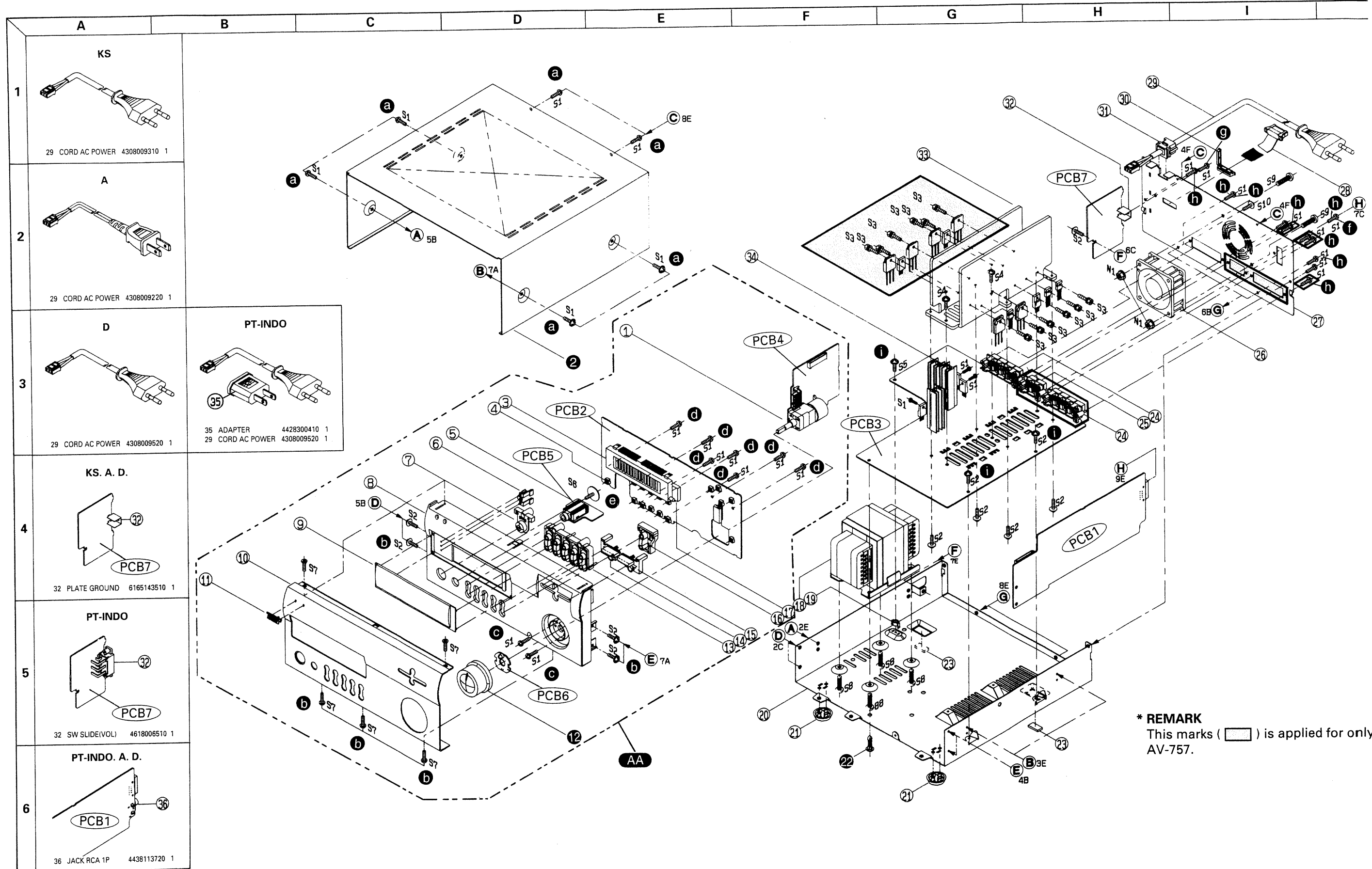
Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
PACKAGE					MISCELLANEOUS				
	Box Carton (AV-757)	049605258201	1	KS		Card Cable, 21P, 220mm	4118621225	1	
	Box Carton (AX-747)	049605258202		KS		Card Cable, 21P, 120mm	4118621129	1	
	Box Carton (AV-757)	049605258206	1	A,D,PT INDO	PCB1	P.C.Board EQ	4005012710	1	
	Box Carton (AX-747)	049605258205	1	A,D,PT INDO	PCB2	P.C.Board Front	4005012700	1	
	Cushion Poly	9722041210	1		PCB3	P.C.Board Main	4001002800	1	
	Film Soft PE	9715000120	1		PCB4	P.C.Board Headphone	4001002820	1	
CABINET & CHASSIS					PCB5	P.C.Board Volume	4001002840	1	
1	Volume, Motor	3228020010	1		PCB6	P.C.Board Volume LED	4001002830	1	
2	Cover, Top	046123017811	1		PCB7	P.C.Board Voltage	4001002810	1	
3	FIP, 15BW16Y	2328130931	1						
4	Switch, Tact	4658003710	16						
5	Jack, Phone	4438005510	1						
6	Indicator, LED	8555051310	3						
7	Button, Power	048545181011	1						
8	Body, Front	048521009711	1						
9	Window, Display	048553023511	1						
10	Panel, Front (AV-757)	048602019811	1						
(10)	Panel, Front (AX-747)	048602019812	1						
11	Badge, INKEL	048535045411	1	KS					
(11)	Badge, SHERWOOD	048535045421	1	A,D,PT INDO					
12	Knob, Volume	048643007611	1						
13	Button, Function	048543070011	1						
14	Button, EQ, Left	048545131111	1						
15	Button, EQ, Right	048545131121	1						
16	Button, EQ, Up/Down	048543070111	1						
17	Rubber Sponge	6715012010	1						
18	⚠ Power Transformer, 220 V, 60 Hz	2828100851	1	KS					
(18)	⚠ Power Transformer, 230 V, 50 Hz	2828100931	1	D					
(18)	⚠ Power Transformer, 110/220V, 50/60Hz	2828100921	1	PT INDO					
(18)	⚠ Power Transformer, 120 V, 60 Hz	2828100951	1	A					
19	Spacer, PCB	6705004220	1						
20	Chassis, Main	6121614910	1						
21	Rubber Foot	6035104410	2						
22	Fastener	6528301710	1						
23	Cushion, Foot	6715021230	2						
24	Terminal, Speaker, 4P (AV-757 ONLY)	4408105410	2						
25	Terminal, Speaker, 2P (AV-757 ONLY)	4408107010	1						
26	Fan, DC Brushless	5518103310	1						
27	Chassis, Back (AV-757)	046102044511	1	KS					
(27)	Chassis, Back (AX-747)	046102044411	1	KS					
(27)	Chassis, Back (AV-757)	046102044521	1	A					
(27)	Chassis, Back (AX-747)	046102044421	1	A					
(27)	Chassis, Back (AV-757)	046102044551	1	D					
(27)	Chassis, Back (AX-747)	046102044451	1	D					
(27)	Chassis, Back (AV-757)	046102044591	1	PT INDO					
(27)	Chassis, Back (AX-747)	046102044491	1	PT INDO					
28	Connector, Lead Assy	4358615503	1						
29	⚠ Cord, AC Power	4308009310	1	KS					
(29)	⚠ Cord, AC Power	4308009220	1	A					
(29)	⚠ Cord, AC Power	4308009520	1	D,PT INDO					
30	Stopper, Connector	6518002210	1						
31	Stopper, Cord AC power	6518002310	1						
32	Plate, Ground	6165143510	1	A,D,KS					
(32)	Switch, Slide	4618006510	1	PT INDO					
33	Heatsink, Power	7503067220	1						
34	Heatsink, Regulator	7505206230	3						
35	Adapter	4428300410	1	PT INDO					
(35)	Not Used !			A,D,KS					
36	Jack RCA, 1P	4438113720	1	A,D,PT INDO					
(36)	Not Used !			KS					
HARDWARE KIT									
S1	Screw, #B BTT 3x8B (AV-757)	8179130063	30						
(S1)	Screw, #B BTT 3x8B (AX-747)	8179130063	26						
S2	Screw, #B WPTT 3x6Y	8179230061	11						
S3	Screw, Heatsink AV-757	8195000310	12						
(S3)	Screw, Heatsink AX-747	8195000310	6						
S4	Screw, #2 WPTC 3x10Y	8159230101	2						
S5	Screw, #2 WPTC 3x16Y	8159230161	1						
S6	Screw, Mecha	8155001210	1						
S7	Screw, #2 FTC 3x8B	8129230083	5						
S8	Screw, BSAM 4x8B	8109440083	4						
S9	Screw, BM 4x30B	8009140303	2						
S10	Screw, Ground	8155000710	2	D					
(S10)	Not Used !			A,KS,PT INDO					
N1	Nut, HEX Flanged M4Y	8209540011	1						


PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list are of special significance to safety. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

EXPLODED VIEW

Model No. : AX-747/AV-757

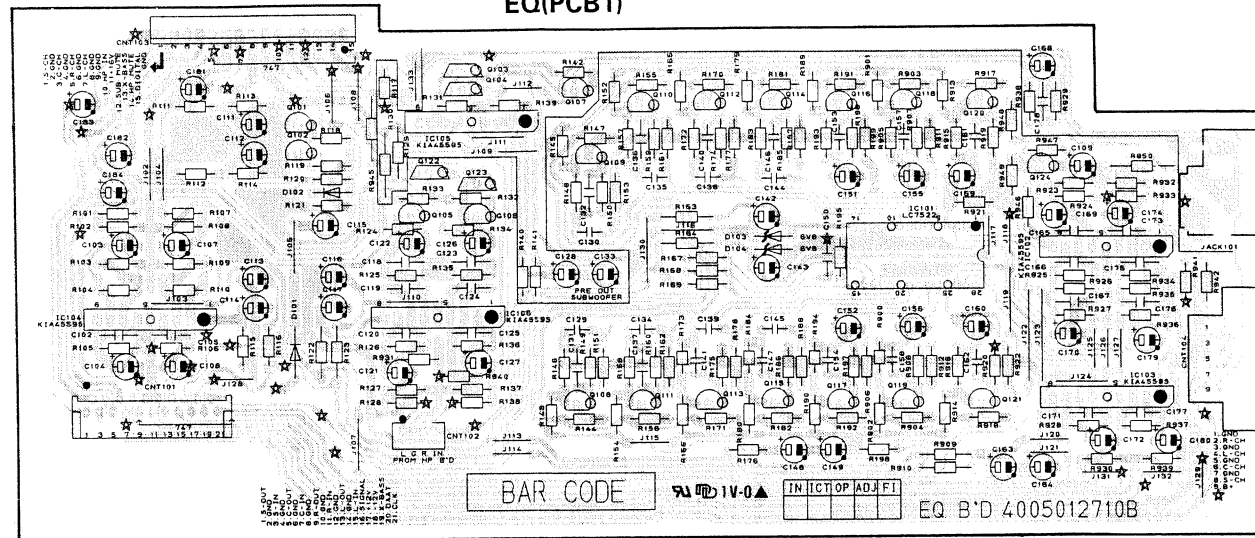


*** REMARK**
This marks () is applied for only AV-757.

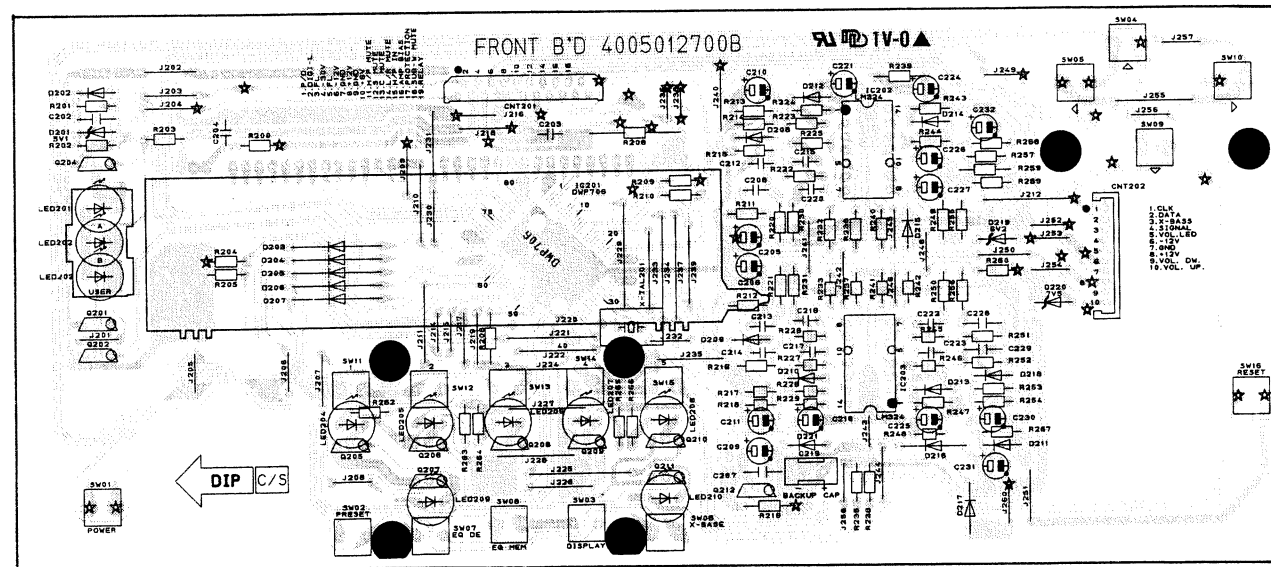
PRINTED CIRCUIT BOARDS

Model No. : AX-747/AV-757

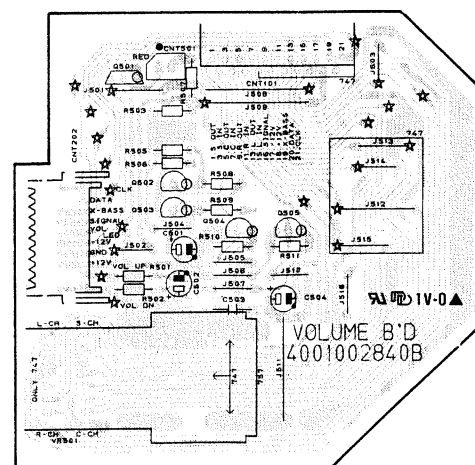
EQ(PCB1)



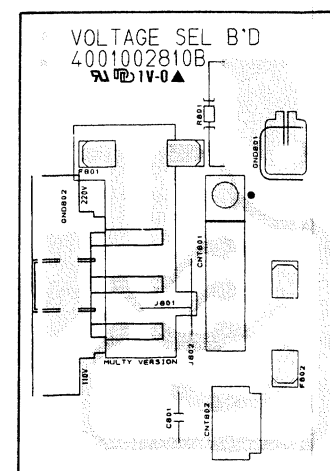
FRONT(PCB2)



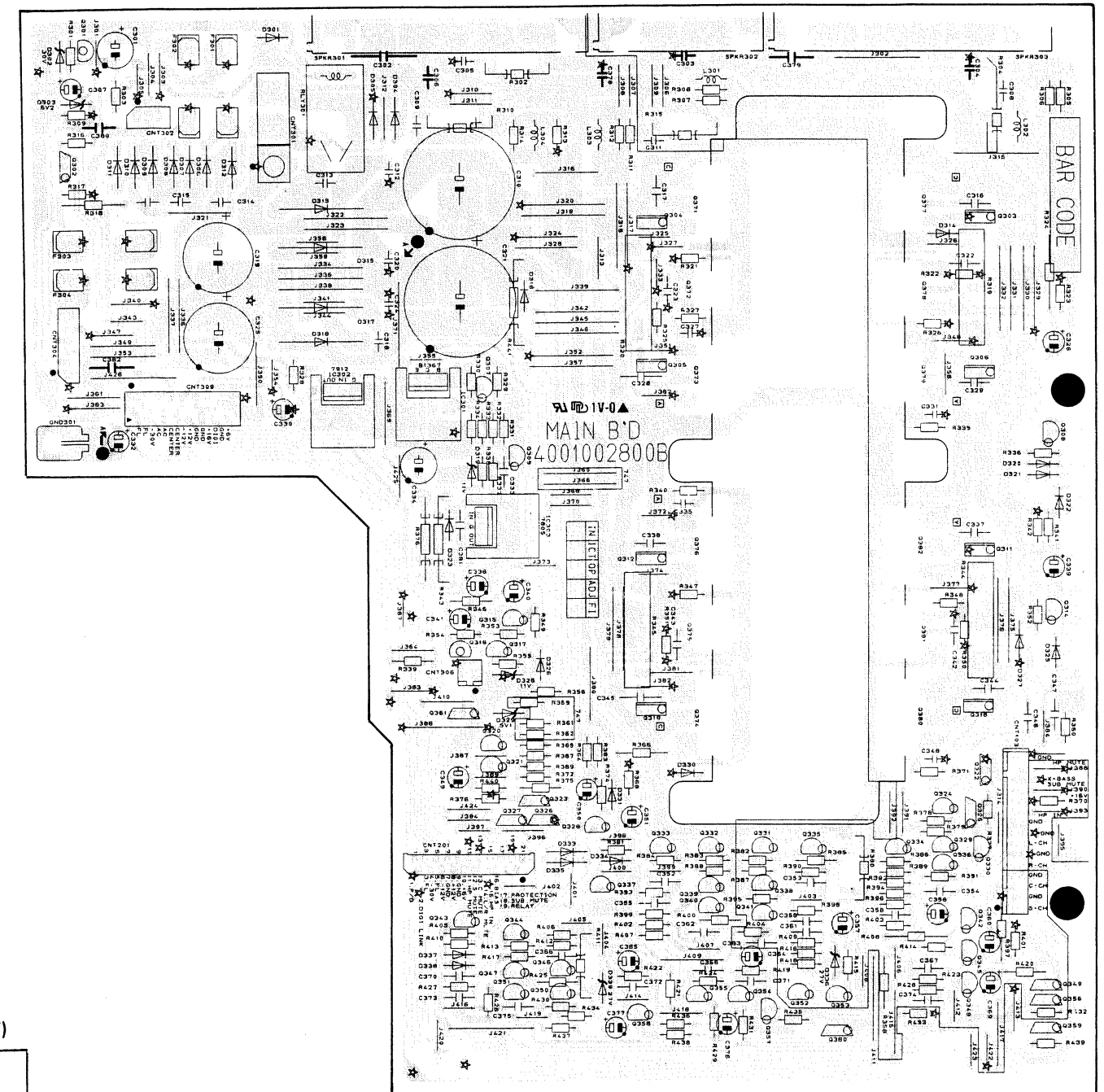
VOLUME(PCB4)



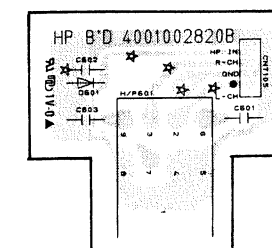
VOLTAGE SEL. (PCB7)



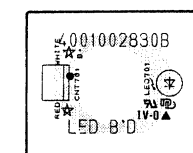
MAIN(PCB3)




HEADPHONE(PCB5)



VOLUME LED(PCB6)



ELECTRICAL PARTS LIST

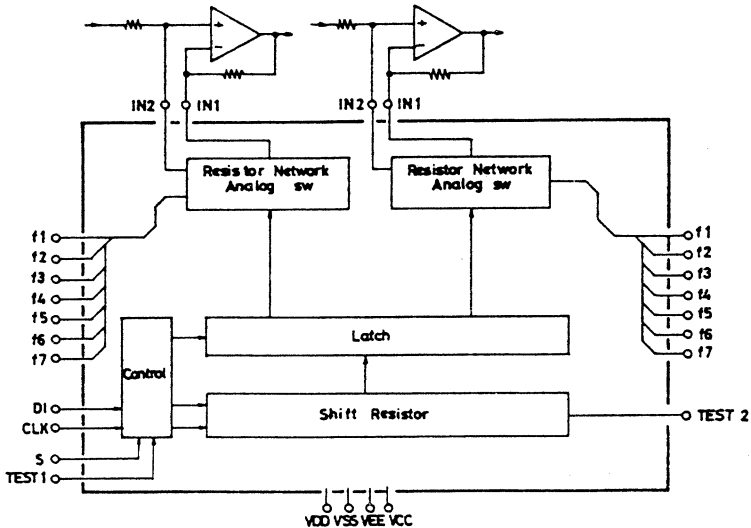
PRODUCT SAFETY NOTICE : Products marked with  have special characteristics important to safety.
If you replace any of these components, read carefully the product safety notice in this manual.
Don't degrade the safety of the product through improper servicing.
Resistor/Capacitor tolerance – D : (± 0.5%), J : (± 5%), K : (± 10%), M : (± 20%), Z : +80, – 20%)

Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
PCB1	ASSEMBLY P.C.BOARD EQ								
	CAPACITORS								
C102	Ceramic Tubular	100	pF	50 V M	3519101935	1			
C103/C104	Electrolytic SG	4.7	uF	50 V M	3479347971	2			
C105	Ceramic Tubular	100	pF	50 V M	3519101935	1			
C107-C109	Electrolytic SG	4.7	uF	50 V M	3479347971	3			
C111/C112	Electrolytic SG	0.33	uF	50 V M	3479333871	2			
C113/C114	Electrolytic SG	47	uF	16 V M	3479347031	2			
C115	Electrolytic SG	22	uF	25 V M	3479222041	1			
C116/C117	Electrolytic SG	47	uF	16 V M	3479347031	2			
C118	Ceramic Tubular	820	pF	50 V J	3519821935	1			
C119	Ceramic Tubular	100	pF	50 V M	3519101935	1			
C120	Ceramic Tubular	470	pF	50 V J	3519471935	1			
C121	Electrolytic SG	47	uF	16 V M	3479347031	1			
C122	Electrolytic SG	4.7	uF	50 V M	3479347971	1			
C123	Ceramic Tubular	820	pF	50 V J	3519821935	1			
C124	Ceramic Tubular	100	pF	50 V M	3519101935	1			
C125	Ceramic Tubular	470	pF	50 V J	3519471935	1			
C126	Electrolytic SG	4.7	uF	50 V M	3479347971	1			
C127	Electrolytic SG	47	uF	16 V M	3479347031	1			
C128	Electrolytic SG	47	uF	16 V M	3479347031	1	A,D,PT INDO KS		
(C128)	Not Used !								
C129/C130	Mylar	0.0033	uF	100 V J	3679332120	2			
C131/C132	Ceramic Tubular	330	pF	50 V J	3519331935	2			
C133	Electrolytic SG	47	uF	16 V M	3479347031	1	A,D,PT INDO KS		
(C133)	Not Used !								
C134/C135	Mylar	0.0082	uF	100 V J	3679822120	2			
C136/C137	Ceramic Tubular	820	pF	50 V J	3519821935	2			
C138/C139	Mylar	0.02	uF	100 V J	3679203120	2			
C140/C141	Mylar	0.0022	uF	100 V J	3679222120	2			
C142/C143	Electrolytic SG	47	uF	16 V M	3479347031	2			
C144/C145	Mylar	0.0047	uF	100 V J	3679472120	2			
C146/C147	Mylar	0.047	uF	100 V J	3679473120	2			
C148/C149	Electrolytic SG	47	uF	16 V M	3479347031	2			
C150	Ceramic Tubular	100	pF	50 V M	3519101935	1			
C151/C152	Electrolytic SG	0.1	uF	50 V M	3479310871	2			
C153/C154	Mylar	0.015	uF	100 V J	3679153120	2			
C155/C156	Electrolytic SG	0.22	uF	50 V M	3479322871	2			
C157/C158	Mylar	0.0047	uF	100 V J	3679472120	2			
C159/C160	Electrolytic SG	0.68	uF	50 V M	3479368871	2			
C161/C162	Mylar	0.1	uF	63 V K	3679104297	2			
C163/C164	Electrolytic SG	47	uF	16 V M	3479347031	2			
C165/C166	Ceramic Tubular	330	pF	50 V J	3519331935	2			
C167	Ceramic Tubular	150	pF	50 V J	3519151935	1			
C168	Electrolytic SG	22	uF	25 V M	3479222041	1	A,D,PT INDO KS		
(168)	Not Used !								
C169	Electrolytic SG	1	uF	50 V M	3479310971	1			
C170	Electrolytic SG	2.2	uF	50 V M	3479322971	1			
C171	Ceramic Tubular	47	pF	50 V J	3519470935	1			
C172	Electrolytic SG	2.2	uF	50 V M	3479322971	1			
C173	Ceramic Tubular	330	pF	50 V J	3519331935	1			
C174	Electrolytic SG	1	uF	50 V M	3479310971	1			
C175	Ceramic Tubular	330	pF	50 V J	3519331935	1			
C176	Ceramic Tubular	150	pF	50 V J	3519151935	1			
C177	Ceramic Tubular	47	pF	50 V J	3519470935	1			
C178	Ceramic Tubular	100	pF	50 V M	3519101935	1	A,D,PT INDO KS		
(C178)	Not Used !								
C179/C180	Electrolytic SG	2.2	uF	50 V M	3479322971	2			
C181-C184	Electrolytic SG	4.7	uF	50 V M	3479347971	4			
C185-C187	Ceramic Tubular	0.047	uF	50 V F	3519473935	3			
	CONNECTORS								
CNT102	Wafer, 4P				4428516310	1			
CNT103	Wafer, 15P				4428561520	1			
CNT104	Wafer, 9P				4428509820	1			
	DIODES								
D101/D102	1N4148, Switching				2058322101	2			
D103/D104	Zener, UZ 6.8 BSC				2258599121	2			
	INTEGRATED CIRCUITS								
IC101	LC7522				2168017122	1			
IC102-IC104	KIA4559S/KIA75559S				2168206103	3			
IC105	KIA4559S/KIA75559S				2168206103	1	A,D,PT INDO KS		
(IC105)	Not Used !								
IC106	KIA4559S/KIA75559S				2168206103	1			
	TRANSISTORS								
Q101/Q102	KTC3198Y, NPN				2208606104	2			
Q103	DTC114YS				2208622106	1	A,D,PT INDO KS		
(Q103)	Not Used !								
Q104	DTA114YS/KRM107M				2238006103	1	A,D,PT INDO KS		
(Q104)	Not Used !								
Q105/Q106	KTC3198Y, NPN				2208606104	2			
Q107	KTD1302, NPN				2208606112	1	A,D,PT INDO KS		
(Q107)	Not Used !								
Q108-Q121	KTC3198Y, NPN				2208606104	4			
Q122	DTA114YS/KRM107M				2238006103	1			
Q123	DTC114YS				2208622106	1			
Q124	KTC3198Y, NPN				2208606104	1			
	RESISTORS								
R101	Carbon Film	6.2	kohm	1/5 W J	3069622970	1			
R102	Carbon Film	100	kohm	1/5 W J	3069104970	1			
R103	Metal Film	270	ohm	1/5 W J	3029271970	1			
R104	Carbon Film	6.8	kohm	1/5 W J	3069682970	1			
R105/R106	Carbon Film	100	kohm	1/5 W J	3069104970	2			
R107	Carbon Film	6.2	kohm	1/5 W J	3069622970	1			
R108	Carbon Film	100	kohm	1/5 W J	3069104970	1			
R109	Metal Film	270	ohm	1/5 W J	3029271970	1			
R110	Carbon Film	6.8	kohm	1/5 W J	3069682970	1			
R111/R112	Metal Film	1.5	kohm	1/5 W J	3029152970	2			
R113/R114	Carbon Film	47	kohm	1/5 W J	3069473970	2			
R115/R116	Metal Film	100	ohm	1/5 W J	3029101970	2			
R117	Metal Film	4.7	kohm	1/5 W J	3029472970	1	A,D,PT INDO KS		
(R117)	Not Used !								
R118/R119	Metal Film	3.3	kohm	1/5 W J	3029332970	2			
R120	Metal Film	220	ohm	1/5 W J	3029221970	1			
R121	Carbon Film	470	kohm	1/5 W J	3069474970	1			
R122/R123	Metal Film	10	ohm	1/5 W J	3029100970	2			
R124	Carbon Film	8.2	kohm	1/5 W J	3069822970	1			
R125	Carbon Film	100	kohm	1/5 W J	3069104970	1			
R126	Metal Film	3.9	kohm	1/5 W J	3029392970	1			
R127	Carbon Film	100	kohm	1/5 W J	3069104970	1			
R128	Metal Film	4.7	ohm	1/5 W J	3029479970	1			
R129-R131	Metal Film	1	kohm	1/5 W J	3029102970	3	A,D,PT INDO KS		
R132/R133	Metal Film	3.3	kohm	1/5 W J	3029332970	2			
R134	Carbon Film	8.2	kohm	1/5 W J	3069822970	1			
R135	Carbon Film	100	kohm	1/5 W J	3069104970	1			
R136	Metal Film	3.9	kohm	1/5 W J	3029392970	1			
R137	Carbon Film	100	kohm	1/5 W J	3069104970	1			
R138	Metal Film	4.7	ohm	1/5 W J	3029479970	1			
R139	Metal Film	1	kohm	1/5 W J	3029102970	1	A,D,PT INDO KS		
(R139)	Not Used !								
R140/R141	Metal Film	100	ohm	1/5 W J	3029101970	2	A,D,PT INDO KS		
(R140/R141)	Not Used !								
R142	Metal Film	3.3	kohm	1/5 W J	3029332970	1	A,D,PT INDO KS		
(R142)	Not Used !								
R143	Carbon Film	15	kohm	1/5 W J	3069153970	1			
R144	Metal Film	390	ohm	1/5 W J	3029391970	1			
R145	Carbon Film	15	kohm	1/5 W J	3069153970	1			
R146	Metal Film	1	kohm	1/5 W J	3029102970	1			
R147	Metal Film	390	ohm	1/5 W J	3029391970	1			
R148	Metal Film	1	kohm	1/5 W J	3029102970	1			
R149/R150	Carbon Film	100	kohm	1/5 W J	3069104970	2			
R151	Carbon Film	820	kohm	1/5 W J	3069824970	1			
R152	Carbon Film	15	kohm	1/5 W J	3069153970	1			
R153	Carbon Film	820	kohm	1/5 W J	3069824970	1			
R154	Carbon Film	15	kohm	1/5 W J	3069153970	1			
R155/R156	Metal Film	390	ohm	1/5 W J	3029391970	2			
R157/R158	Metal Film	1	kohm	1/5 W J	3029102970	2			
R159/R160	Carbon Film	100	kohm	1/5 W J	3069104970	2			
R161/R162	Carbon Film	820	kohm	1/5 W J	3069824970	2			
R163	Metal Film	390	ohm	1/5 W J	3029391970	1			
R164	Metal Film	470	ohm	1/5 W J	3029471970	1			
R172/R173	Carbon Film	100	kohm	1/5 W J	3069104970	2			
R174/R175	Metal Film	180	ohm	1/5 W J	3029181970	1			
R176	Metal Film	820	kohm	1/5 W J	3069824970	2			
R177/R178	Carbon Film	15	kohm	1/5 W J	3069153970	2			
R179/R180	Carbon Film	15	kohm	1/5 W J	3029391970	2			
R181/R182	Metal Film	390	ohm	1/5 W J	3029102970	2			
R183/R184	Metal Film	1	kohm	1/5 W J	3029104970	2			
R185/R186	Carbon Film	100	kohm	1/5 W J	3069824970	2			
R187/R188	Carbon Film	820	kohm	1/5 W J	3069824970	2			
R189/R190	Carbon Film	15	kohm	1/5 W J	3069153970	2			
R191/R192	Metal Film	390	ohm	1/5 W J	3029391970	2			
R193/R194	Metal Film	1	kohm	1/5 W J	3029102970	2			
R195	Carbon Film	27	kohm	1/5 W J	3069273970	1			
R196/R197	Carbon Film	100	kohm	1/5 W J	3069104970	2			
R198	Metal Film	100	ohm	1/5 W J	3029101970	1			
R199	Carbon Film	820	kohm	1/5 W J	3069824970	1			
R900	Carbon Film	820	kohm	1/5 W J	3069824970	1			
R901/R902	Carbon Film	15	kohm	1/5 W J	3069153970	2			
R903/R904	Metal Film	390	ohm	1/5 W J	3029391970	2			
R905/R906	Metal Film	1	kohm	1/5 W J	3029102970	2			
R907/R908	Carbon Film	100	kohm	1/5 W J	3069104970	2			
R909/R910	Metal Film	100	ohm	1/5 W J	3029101970	2			
R911/R912	Carbon Film	820							

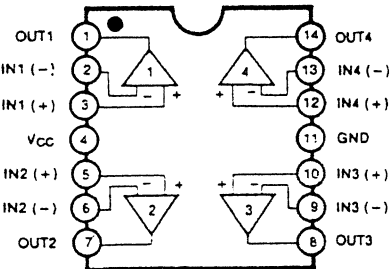
Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
(R361/R362)	Not Used ! (AX-747)				(R420)	Not Used ! (AX-747)				PCB7	ASSEMBLY P.C. BOARD VOLTAGE			
R363	Metal Film	330 ohm 1/5 W J	3029331970	1	R421	Metal Film	120 ohm 1/5 W J	3029121970	1	C801	Not Used !			
R364	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R422	Carbon Film	33 kohm 1/5 W J	3069333970	1	CNT801	Connector, Wafer LV, 4P	4428525780	1	A,D,PT INDO
R365	Carbon Film	12 kohm 1/5 W J	3069123970	1	R423	Carbon Film	33 kohm 1/5 W J	3069333970	1	(CNT801)	Connector, Wafer LV, 2P	4428525800	1	PT INDO
R366	Metal Film	330 ohm 1/5 W J	3029331970	1	(R423)	Not Used ! (AX-747)				CNT802	Connector, Wafer LV, 2P	4428100291	1	
R367	Carbon Film	12 kohm 1/5 W J	3069123970	1	R424	Metal Film	390 ohm 1/5 W J	3029391970	1	F801	△ Fuse, T 2A, 250V	5508302435	1	PT INDO
R368	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R425	Carbon Film	2 kohm 1/5 W J	3069202970	1	(F801)	Not Used !			A,D,KS
R369	Carbon Film	6.8 kohm 1/5 W J	3069682970	1	R426/R427	Carbon Film	33 kohm 1/5 W J	3069333970	2	F802	△ Fuse, T 3.15A, 250V	5508302735	1	A,D,KS
R370	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R428	Carbon Film	33 kohm 1/5 W J	3069333970	1	(F802)	△ Fuse, NB 3.5A, 250V	5508202830	1	PT INDO
R371	Metal Film	220 ohm 1/5 W J	3029221970	1	(R428)	Not Used ! (AX-747)				32	Plate, Ground	6165143510	1	A,D,KS
(R371)	Not Used ! (AX-747)				R429	Metal Film	1.8 kohm 1/5 W J	3029182970	1	(32)	Switch, Slide	4618006510	1	PT INDO
R372	Carbon Film	6.8 kohm 1/5 W J	3069682970	1	R430	Metal Film	390 ohm 1/5 W J	3029391970	1					
R374	Carbon Film	15 kohm 1/5 W J	3069153970	1	R431	Carbon Film	33 kohm 1/5 W J	3069333970	1					
R375	Carbon Film	10 kohm 1/5 W J	3069103970	1	R432	Metal Film	4.7 kohm 1/5 W J	3029472970	1					
R376/R377	Metal Film	3.3 kohm 1/5 W J	3029332970	2	(R432)	Not Used ! (AX-747)								
R378	Metal Film	120 ohm 1/5 W J	3029121970	1	R433	Metal Film	1 kohm 1/5 W J	3029102970	1					
(R378)	Not Used ! (AX-747)				R434	Carbon Film	2 kohm 1/5 W J	3069202970	1					
R379	Metal Film	1 kohm 1/5 W J	3029102970	1	R435/R436	Metal Film	3.3 kohm 1/5 W J	3029332970	2					
(R379)	Not Used ! (AX-747)				R437	Metal Film	1.8 kohm 1/5 W J	3029182970	1					
R380	Metal Film	2.2 kohm 1 W J	3029222470	1	R438	Metal Film	1 kohm 1/5 W J	3029102970	1					
(R380)	Not Used ! (AX-747)				R439	Metal Film	4.7 kohm 1/5 W J	3029472970	1					
R381	Carbon Film	15 kohm 1/5 W J	3069153970	1	R440	Metal Film	1 kohm 1/5 W J	3029102970	1					
R382	Metal Film	120 ohm 1/5 W J	3029121970	1										
(R382)	Not Used ! (AX-747)													
R383	Metal Film	120 ohm 1/5 W J	3029121970	1										
R384	Metal Film	3.3 kohm 1/5 W J	3029332970	1										
R385/R386	Metal Film	120 ohm 1/5 W J	3029121970	2										
(R385/R386)	Not Used ! (AX-747)													
R387	Metal Film	1 kohm 1/5 W J	3029102970	1										
(R387)	Not Used ! (AX-747)													
R388	Metal Film	1 kohm 1/5 W J	3029102970	1										
R389/R390	Metal Film	3.3 kohm 1/5 W J	3029332970	2										
(R389/R390)	Not Used ! (AX-747)													
R391	Metal Film	1 kohm 1/5 W J	3029102970	1										
(R391)	Not Used ! (AX-747)													
R392	Carbon Film	10 kohm 1/5 W J	3069103970	1										
(R392)	Not Used ! (AX-747)													
R393	Carbon Film	33 kohm 1/5 W J	3069333970	1										
R394	Carbon Film	2 kohm 1/5 W J	3069202970	1										
(R394)	Not Used ! (AX-747)													
R395	Carbon Film	10 kohm 1/5 W J	3069103970	1										
(R395)	Not Used ! (AX-747)													
R396	Carbon Film	2 kohm 1/5 W J	3069202970	1										
(R396)	Not Used ! (AX-747)													
R397	Metal Film	1 kohm 1/5 W J	3029102970	1										
(R397)	Not Used ! (AX-747)													
R398	Carbon Film	33 kohm 1/5 W J	3069333970	1										
(R398)	Not Used ! (AX-747)													
R399	Carbon Film	10 kohm 1/5 W J	3069103970	1										
R400	Metal Film	1 kohm 1/5 W J	3029102970	1										
R401	Metal Film	1 kohm 1/5 W J	3029102970	1										
(R401)	Not Used ! (AX-747)													
R402	Carbon Film	2 kohm 1/5 W J	3069202970	1										
R403	Metal Film	390 ohm 1/5 W J	3029391970	1										
(R403)	Not Used ! (AX-747)													
R404	Metal Film	1 kohm 1/5 W J	3029102970	1										
(R404)	Not Used ! (AX-747)													
R405	Metal Film	120 ohm 1/5 W J	3029121970	1										
R406	Carbon Film	10 kohm 1/5 W J	3069103970	1										
R407	Carbon Film	2 kohm 1/5 W J	3069202970	1										
R408	Carbon Film	33 kohm 1/5 W J	3069333970	1										
(R408)	Not Used ! (AX-747)													
R409	Metal Film	390 ohm 1/5 W J	3029391970	1										
(R409)	Not Used ! (AX-747)													
R410	Metal Film	3.3 kohm 1/5 W J	3029332970	1										
R411	Metal Film	2.2 kohm 1 W J	3029222470	1										
R412	Metal Film	1 kohm 1/5 W J	3029102970	1										
R413	Metal Film	120 ohm 1/5 W J	3029121970	1										
R414/R415	Metal Film	1.2 kohm 1/5 W J	3029122970	2										
(R414/R415)	Not Used ! (AX-747)													
R416	Carbon Film	2 kohm 1/5 W J	3069202970	1										
(R416)	Not Used ! (AX-747)													
R417	Metal Film	1 kohm 1/5 W J	3029102970	1										
R418	Carbon Film	2 kohm 1/5 W J	3069202970	1										
(R418)	Not Used ! (AX-747)													
R419	Carbon Film	33 kohm 1/5 W J	3069333970	1										
R420	Metal Film	3.3 kohm 1/5 W J	3029332970	1										

IC FUNCTIONAL BLOCK DIAGRAM

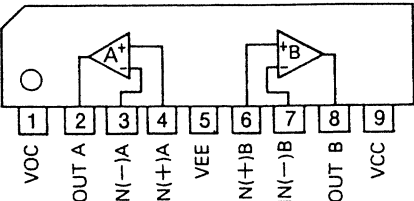
IC101 : LC7522



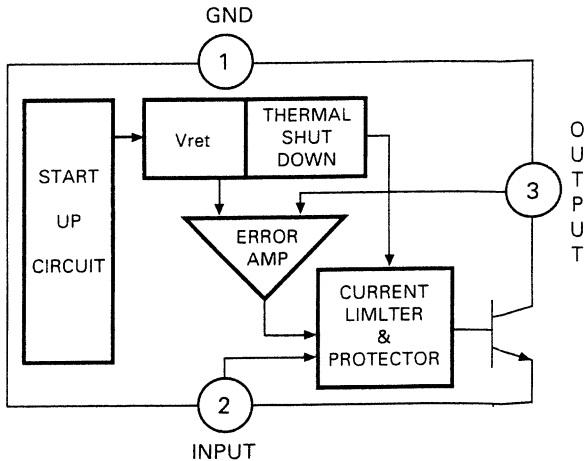
IC102/IC103 : KA324



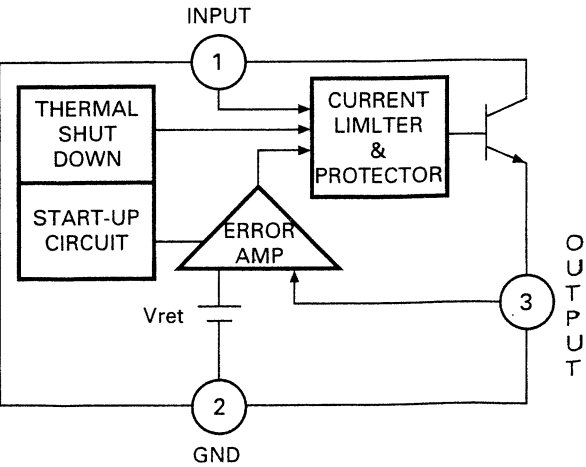
IC102, IC103, IC104, IC105, IC106 : KIA4559S/KIA7559S



IC302 : KA7912

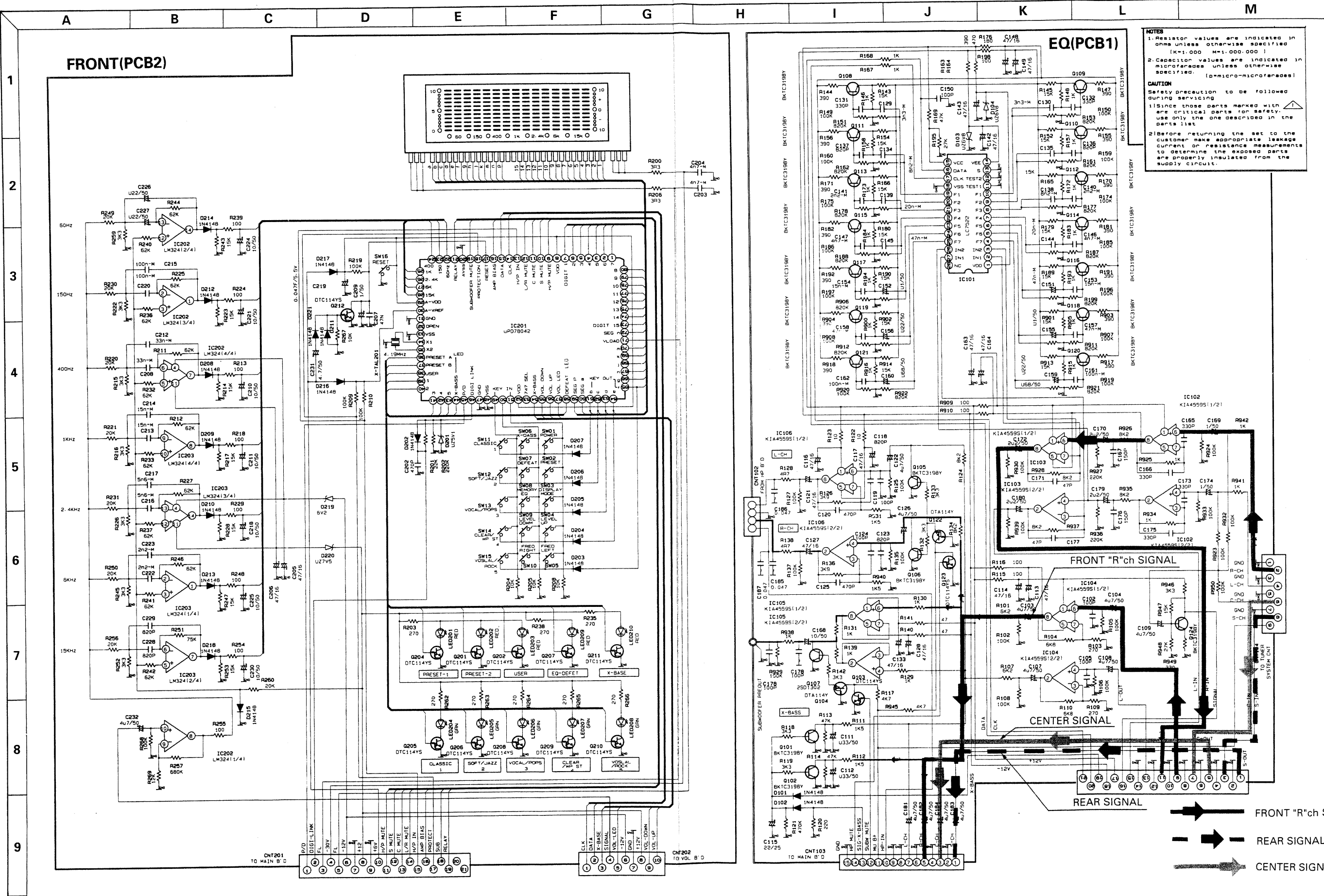


IC303 :KA7805



SCHEMATIC DIAGRAM I

Model No. : AX-747/AV-757



NOTES

1. Resistor values are indicated in ohms unless otherwise specified.
[K=1,000 M=1,000,000]
2. Capacitor values are indicated in microfarads unless otherwise specified. [p=micro-microfarads]

CAUTION

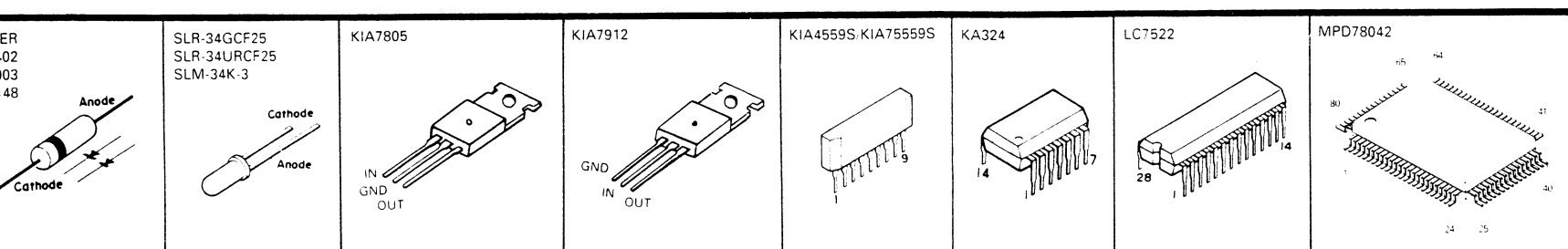
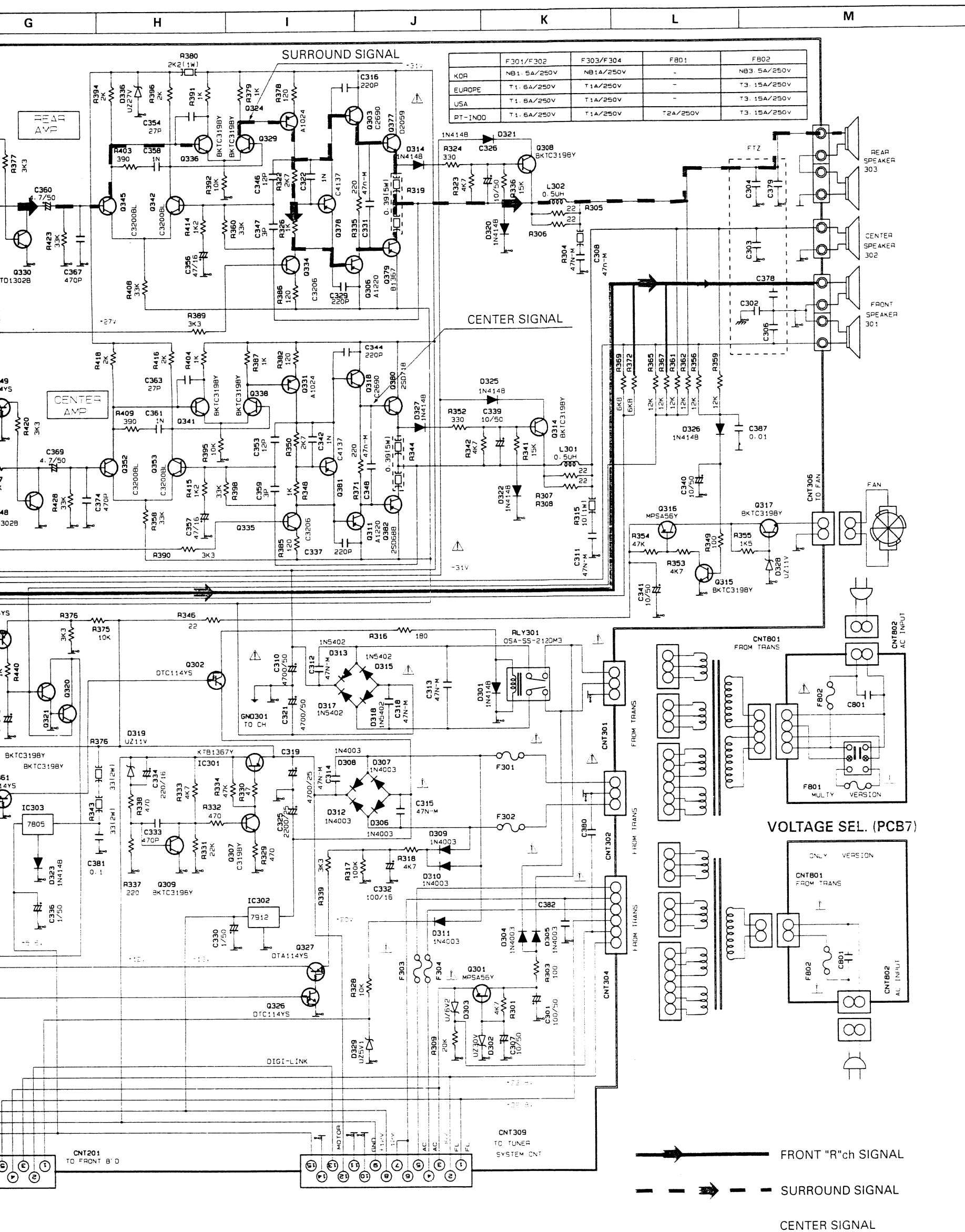
Safety precaution to be followed during servicing:

1. Since those parts marked with * are critical parts for safety, use only the one described in the parts list.
2. Before returning the set to the customer, make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

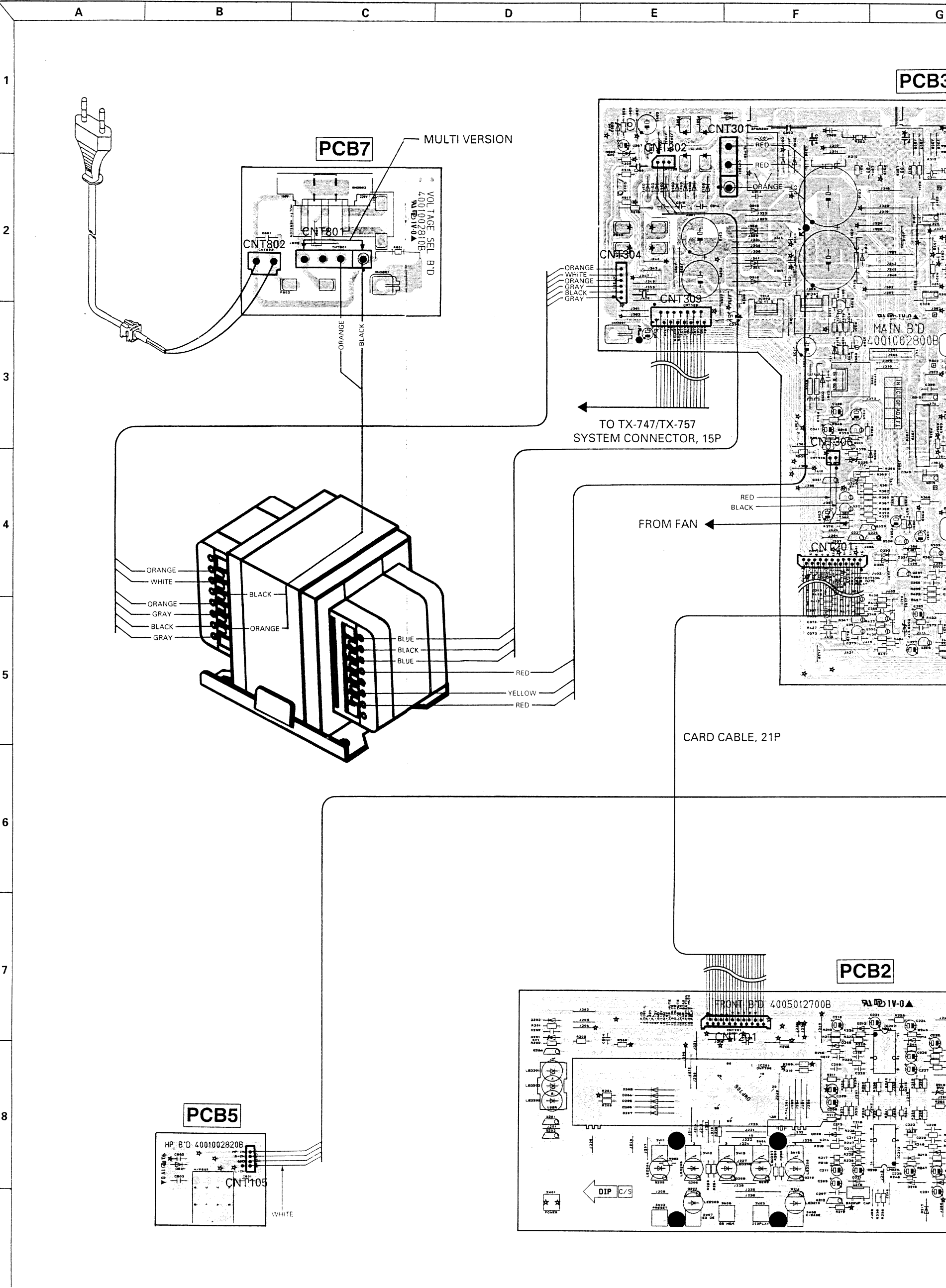
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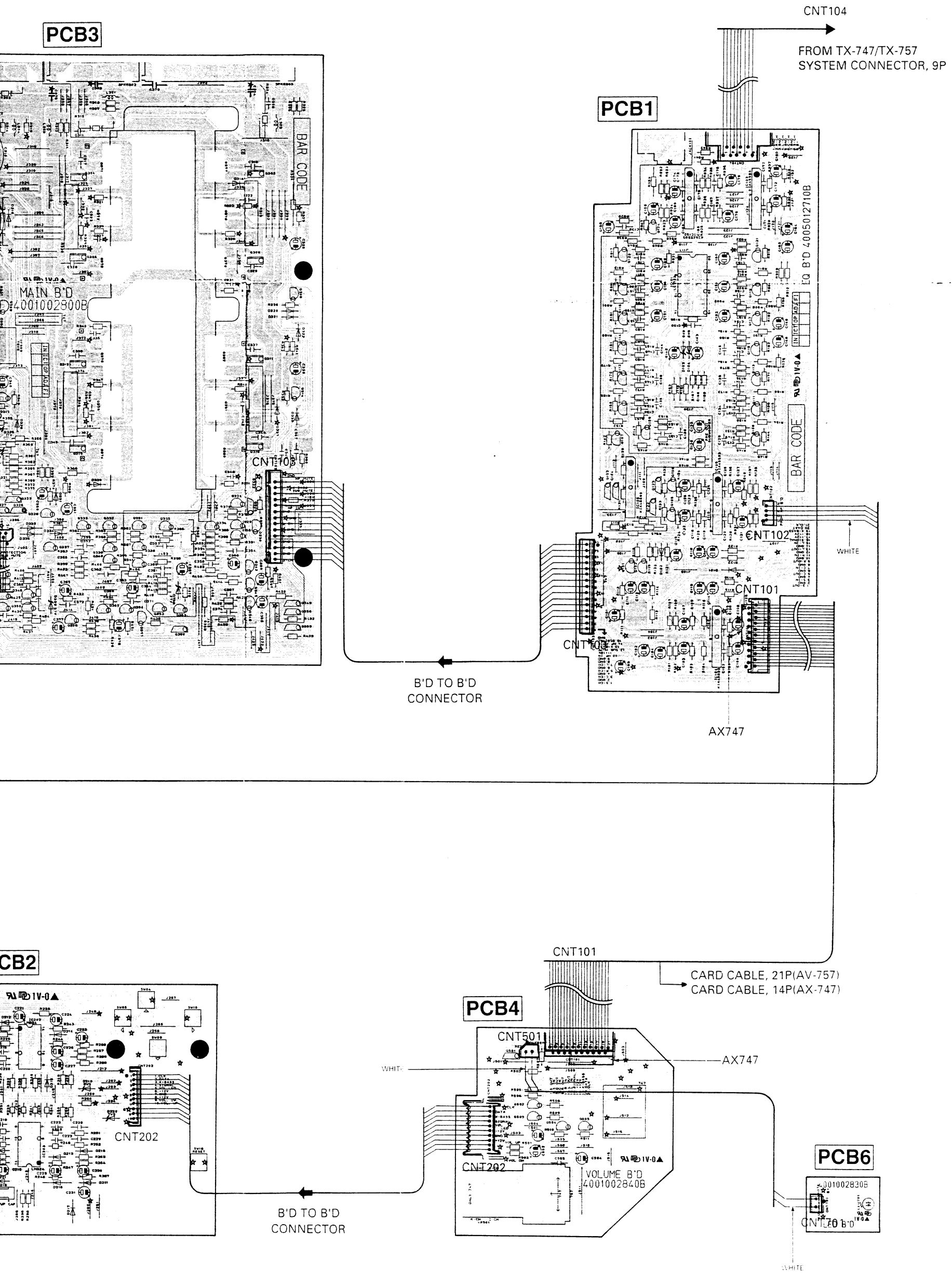
<p>KTD1302 KTC2240/KTC3200 KTC3198/KTC1815 KTA1266/KTA1015Y</p>	<p>MPSA56Y</p>	<p>DTA114YS DTC114YS</p>	<p>KTA949/KTA1024</p>	<p>2SC4137 KSC2690A KSA1220A</p>	<p>KT6888 KTD718</p>	<p>2SB1367 2SD2059</p>	<p>ZENER IN5402 IN4003 IN4148</p>
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WIRING DIAGRAM



	G	H	I	J	K	L	
--	---	---	---	---	---	---	--



■ TX-757/747 ■

SPECIFICATIONS

* **Preparation** : Output voltage setting at speaker terminal for measurement is 2 V (Input : VIDEO, 1kHz, 250mV)

FM SECTION

* Measurement Condition

- Antenna input impedance: 75 ohms

Version	USA/Canada ("A")	Europe ("D")	Korea ("KS")	Multi ("PT INDO")
RF Signal	98.1 MHz	98.0 MHz	98.1 MHz	98.0 MHz

No.	Description	Unit	Nominal	Limit
1	Tuning Frequency Range KS, A D, PT INDO	MHz	87.5 - 107.9 87.5 - 108.0	
2	Scanning Frequency Interval KS, A D, PT INDO	kHz	200 50	
3	FM De-emphasis KS, A D, PT INDO	uS	75 50	
4	Usable Sensitivity 90.1/106.1 MHz, Stereo Mode, S/N=30 dB	uV	≤ 1.5	≤ 3
5	50 dB Quieting Sensitivity S/N=50 dB (IHF BPF)	uV	≤ 50	
6	Signal to Noise Ratio, 75 kHz Dev. MONO STEREO (BPF)	dB	≥ 73 ≥ 70	≥ 67 ≥ 64
7	Total Harmonic Distortion at 1 kHz, 75 kHz Dev. MONO STEREO (BPF)	%	≤ 0.2 ≤ 0.4	≤ 0.4 ≤ 0.8
8	Stereo Threshold	uV	10 ± 2	10 ± 4
9	Muting Threshold	uV	10 ± 2	10 ± 4
10	Output Voltage with 1 kHz, DOLBY Tape (TCC-130) (Reference voltage setting: speaker output 2 V)	mV	4000 ± 400	4000 ± 600
11	Memory Holding Time	week		≥ 4
12	Stereo Separation at 1 kHz, 98 MHz (IHF BPF)	dB	≥ 45	≥ 40

AM SECTION

* Measurement Condition

- RF Signal: 999 kHz, 5 mV/m or 207 kHz, 5 mV/m

- MOD.: 400 Hz, 30%

No.	Description	Unit	Nominal	Limit
1	Tuning Frequency Range KS A PT INDO D	kHz	522 ~ 1611 520 ~ 1710 520/522 ~ 1710/1611 522 ~ 1611, 153 ~ 279	
2	Scanning Frequency Interval KS, D A PT INDO	kHz	9 10 9/10	
3	Usable Sensitivity, S/N=20 dB, 30% Mod. 600/1400 kHz 162/252 kHz	uV/m	≤ 600 ≤ 1000	≤ 1000 ≤ 1300
4	Signal to Noise Ratio, 30% Mod. 999 kHz, 400 Hz 207 kHz, 400 Hz	dB	≥ 40 ≥ 35	≥ 36 ≥ 30
5	Output Voltage, 400 Hz, 30% Mod., 5mV/m DOLBY Tape (Reference voltage setting: speaker output 2 V) TCC-130	mV	1500 ± 400	1500 ± 600
6	Search Level	uV/m	600 ± 100	600 ± 200

VIDEO SECTION (TX-757 ONLY)

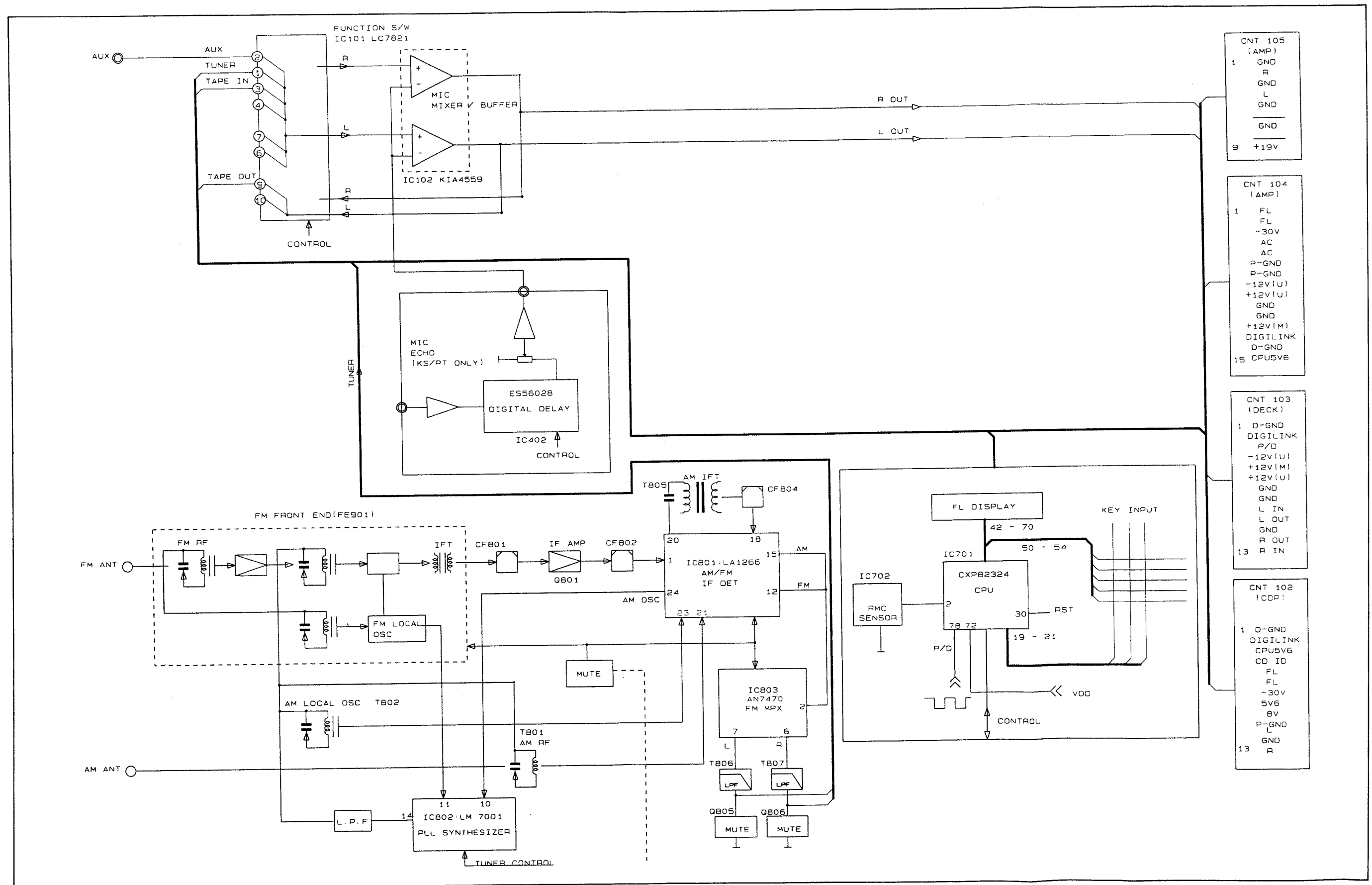
No.	Description	Unit	Nominal	Limit
1	Input Sensitivity/Impedance (75 Ω)	dB	1Vp-p \pm 0.5	1Vp-p \pm 1
2	Output Voltage/Impedance (75 Ω)	dB	1Vp-p \pm 0.5	1Vp-p \pm 1
3	Frequency Response at \pm 3 dB	Hz	10~6M	20~5M
4	Crosstalk at 1.0 MHz	dB	\geq 50	\geq 45
5	Signal to Noise Ratio at 1 MHz, Input shorted	dB	\geq 50	\geq 45

INPUT SECTION

No.	Description	Unit	Nominal	Limit
1	Input Sensitivity TV/AUX etc. (Impedance : 47 kohms) TX-757 AUX (Impedance : 49 kohms) TX-747 MIC (Impedance: 600 ohms)	mV	250 \pm 20 2.5 \pm 0.2	250 \pm 40 2.5 \pm 0.5
2	Output Voltage at TAPE REC	mV	250 \pm 20	250 \pm 40

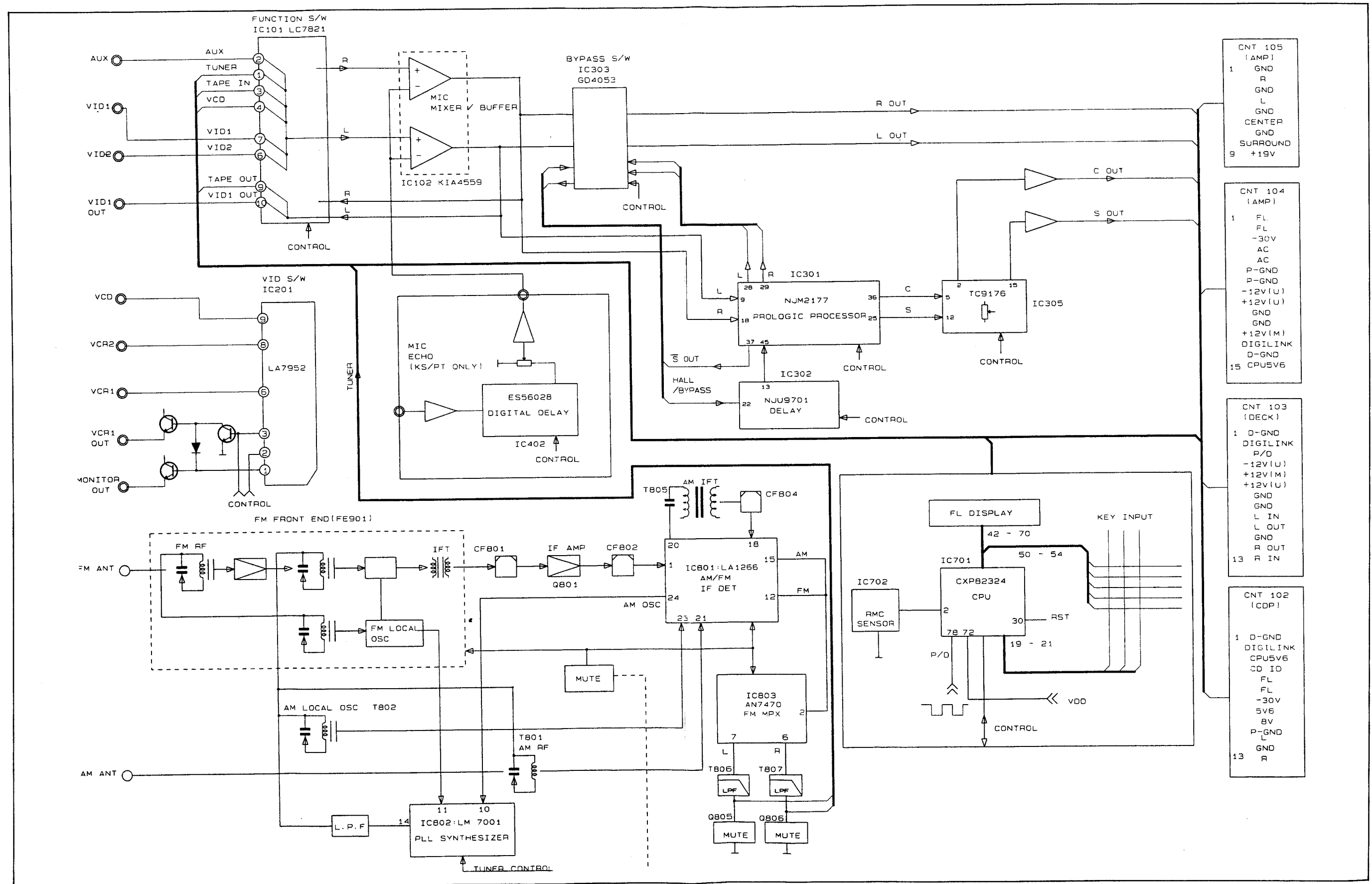
BLOCK DIAGRAM I

Model No : TX-747



BLOCK DIAGRAM II

Model No : TX-757



DISASSEMBLY PROCEDURES

REFER TO PAGES 39 AND 52.

1 COVER TOP REMOVAL.

Remove 5 screws **S2** (05 to 09) and then remove the Cover Top **30**.

2 FRONT PANEL ASSEMBLY REMOVAL

1. Remove the Cover Top **30**, referring to then previous step **1**.
2. Remove the Card Cable from wafer (CNT701) on the Main P.C.Board (PCB1)
3. Disconnect (CNT401) from the Main P.C.Board (PCB5).
4. Remove 7 screws **S2** (01 to 04), **S1** (01 to 03) and then remove the Front Panel Assembly **AA**.

3 MIC P.C.BOARD (PCB3) REMOVAL

1. Remove the Cover Top **30**, referring to the previous step **1**.
2. Remove the Front Panel Assembly **AA**, referring to the previous step **2**.
3. Remove 2 screw **S3** (01, 02) and then remove the Mic P.C.Board (PCB3)

4 FRONT P.C.BOARD (PCB2) REMOVAL

1. Remove the Cover Top **30**, referring to the previous step **1**.
2. Remove the Front Panel Assembly **AA**, referring to the previous step **2**.
3. Remove 9 screws **S2** (23 to 31) and then remove the Front P.C.Board (PCB2).

5 RMC P.C.BOARD (PCB5) REMOVAL

1. Remove the Cover Top **30**, referring to the previous step **1**.
2. Remove the Front Panel Assembly **AA**, referring to the previous step **2**.
3. Remove screw **S2** (22) and then remove (PCB5) by pressing the hooks around it outward.

6 MAIN P.C.BOARD (PCB1) REMOVAL

1. Remove the Cover Top **30**, referring to the previous step **1**.
2. Remove the Card Cable from wafer (CNT701) on the Main P.C.Board (PCB1).
3. Disconnect (CNT401, CNT102, CNT105) from the Main P.C.Board (PCB1).
4. Disconnect (CP501) from the Voltage P.C.Board (PCB4).

5. Remove 2 screw **S4** (03), **S5** (01) on the Main P.C.Board (PCB1).

6. Remove 9 screws **S2** (14 to 20, 11, 21) from the Chassis Back **25** (TX-757).
Remove 6 screw **S2** (14, 15, 19, 20, 21, 11) from the Chassis Back **25** (TX-747).

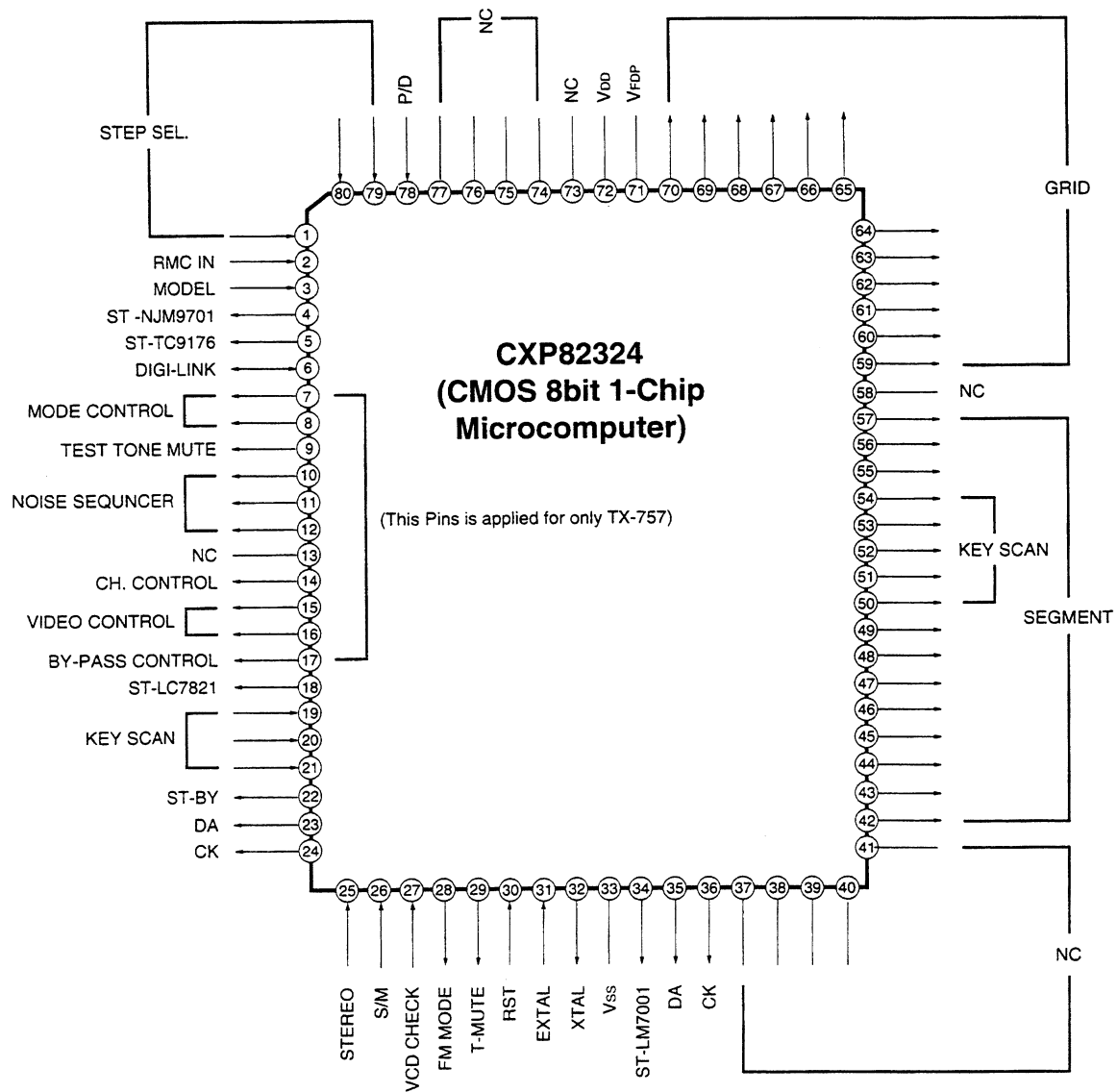
7 VOLTAGE P.C.BOARD (PCB4) REMOVAL

1. Remove the Cover Top **30**, referring to the previous step **1**.
2. Disconnect (CP501) from the Voltage P.C.Board (PCB4).
3. Remove 2 screws **S4** (01, 02).
4. Remove the Fastener **13** and then remove the Voltage P.C.Board (PCB4).

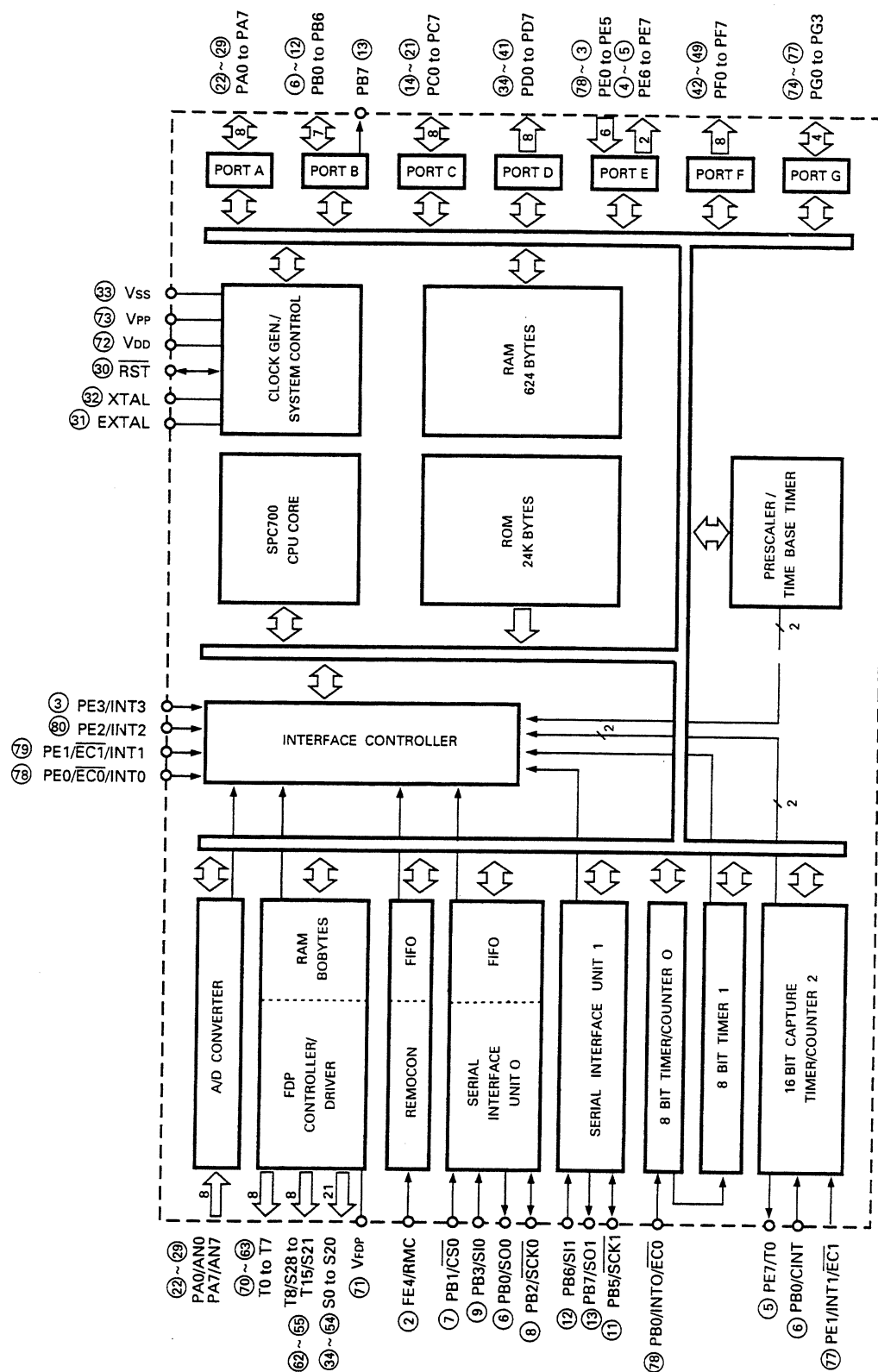
CIRCUIT DESCRIPTION

IC701 : CXP82324 (CMOS 8bit 1-Chip Microcomputer)

1. Pin Connection Diagram



2. Block Diagram



3. Input and Output Terminal Functions

Pin No.	Symbol	Description																																																												
79, 80, 1	STEP SEL	Input to select frequency band and step according to regions. <table><tr><th>Region</th><th>Frequency</th><th>Step</th><th>79</th><th>80</th><th>1</th></tr><tr><td rowspan="2">Korea</td><td>FM: 87.5 ~ 107.9 MHz</td><td>200 kHz</td><td>L</td><td>H</td><td>H</td></tr><tr><td>AM: 522 ~ 1611 kHz</td><td>9 kHz</td><td></td><td></td><td></td></tr><tr><td rowspan="3">PT INDO</td><td>FM: 87.5 ~ 108 MHz</td><td>50 kHz</td><td>L</td><td>L</td><td>H</td></tr><tr><td>AM: 522 ~ 1611 kHz</td><td>9 kHz</td><td></td><td></td><td></td></tr><tr><td>520 ~ 1710 kHz</td><td>10 kHz</td><td></td><td></td><td></td></tr><tr><td rowspan="3">Europe</td><td>FM: 87.5 ~ 108 MHz</td><td>50 kHz</td><td>L</td><td>L</td><td>L</td></tr><tr><td>AM: 522 ~ 1611 kHz</td><td>9 kHz</td><td></td><td></td><td></td></tr><tr><td>153 ~ 279 kHz</td><td>9 kHz</td><td></td><td></td><td></td></tr><tr><td rowspan="2">USA/Canada</td><td>FM: 87.5 ~ 107.9 MHz</td><td>200 kHz</td><td>L</td><td>H</td><td>L</td></tr><tr><td>AM: 520 ~ 1710 kHz</td><td>10 kHz</td><td></td><td></td><td></td></tr></table>	Region	Frequency	Step	79	80	1	Korea	FM: 87.5 ~ 107.9 MHz	200 kHz	L	H	H	AM: 522 ~ 1611 kHz	9 kHz				PT INDO	FM: 87.5 ~ 108 MHz	50 kHz	L	L	H	AM: 522 ~ 1611 kHz	9 kHz				520 ~ 1710 kHz	10 kHz				Europe	FM: 87.5 ~ 108 MHz	50 kHz	L	L	L	AM: 522 ~ 1611 kHz	9 kHz				153 ~ 279 kHz	9 kHz				USA/Canada	FM: 87.5 ~ 107.9 MHz	200 kHz	L	H	L	AM: 520 ~ 1710 kHz	10 kHz			
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USA/Canada	FM: 87.5 ~ 107.9 MHz	200 kHz	L	H	L																																																									
	AM: 520 ~ 1710 kHz	10 kHz																																																												
2	RMC IN	Input for remote control signal.(At "L", it is active)																																																												
3	MODEL	Input to segment, and data output for key scan.																																																												
4	ST-NJU9701	Chip enable output for NJM9701.																																																												
5	ST-TC9176	Chip enable output for TC9176.																																																												
6	DIGI-LINK	Output/Input for communication with other sets.																																																												
7, 8	MODE CONTROL	Output to select prologic mode. <table><tr><th>Pin No.</th><th>Normal</th><th>Wide</th><th>Phantom</th></tr><tr><td>7</td><td>H</td><td>L</td><td>L</td></tr><tr><td>8</td><td>L</td><td>H</td><td>L</td></tr></table>	Pin No.	Normal	Wide	Phantom	7	H	L	L	8	L	H	L																																																
Pin No.	Normal	Wide	Phantom																																																											
7	H	L	L																																																											
8	L	H	L																																																											
9	TEST TONE MUTE	Output is "H" when the test tone mode is being activated.																																																												
10 ~ 12	NOISE SEQUENCER	Output to select noise sequence in prologic mode.																																																												
13	NC	Not Used !																																																												
14	CH. CONTROL	Output to select the channel mode in NJM2177.																																																												
15, 16	VIDEO CONTROL	Output to select the video signal in LA7952. <table><tr><th>Pin No.</th><th>VCR1</th><th>VCR2</th><th>VCD</th></tr><tr><td>15</td><td>H</td><td>L</td><td>L</td></tr><tr><td>16</td><td>L</td><td>H</td><td>H</td></tr></table>	Pin No.	VCR1	VCR2	VCD	15	H	L	L	16	L	H	H																																																
Pin No.	VCR1	VCR2	VCD																																																											
15	H	L	L																																																											
16	L	H	H																																																											
17	BY-PASS CONTROL	Output to allow the audio signal to by-pass dolby decoder IC NJM2177. At "L" the signal is by-passed.																																																												
18	ST-LC7821	Chip enable output for LC7821.																																																												
19 ~ 21	KEY INPUT	Data input for key scan.																																																												
22	ST-BY	When power is on, control data output is "H". When power is off, control data output is "L".																																																												
23/24	DA/CK	Data/Clock output for LC7821, NJM9701 and TC9176.																																																												
25	STEREO	Input to light "STEREO" indicator.(At "L", it is active)																																																												
26	S/M	Input to detect RF level of station during tuning.																																																												
27	VCD CHECK	Input to detect CDC ("H") or VCDC ("L").																																																												
28	FM MODE	Output to select FM MONO or STEREO. At "H", FM MONO is selected and at "L", FM STEREO is selected.																																																												
29	T-MUTE	Output for tuner mute.(At "H", it is active)																																																												
30	RST	Input to reset CPU.																																																												
31	EXTAL	Input for crystal oscillator.																																																												

Pin No.	Symbol	Description
32	XTAL	Output for crystal oscillator.
33	Vss	Ground
34	ST-LM7001	Chip enable output for LM7001.
35/36	DA/CK	Data/Clock output for LM7001.
37 ~ 41	NC	Not Used !
42 ~ 49	SEGMENT	Segment signal output for FIP.
50 ~ 54	SEGMENT/ KEY SCAN	Segment signal output for FIP and Data output for key scan.
55 ~ 57	SEGMENT	Segment signal output for FIP.
58	NC	Not Used !
59 ~ 70	GRID	Grid signal output for FIP.
71	Vfdp	Power supply for FIP controller.
72	Vdd	+5V Power supply.
73	NC	Not Used ! (Connected to Vdd)
74 ~ 77	NC	Not Used !
78	P/D	Input to detect power down.(At "H", it is active)

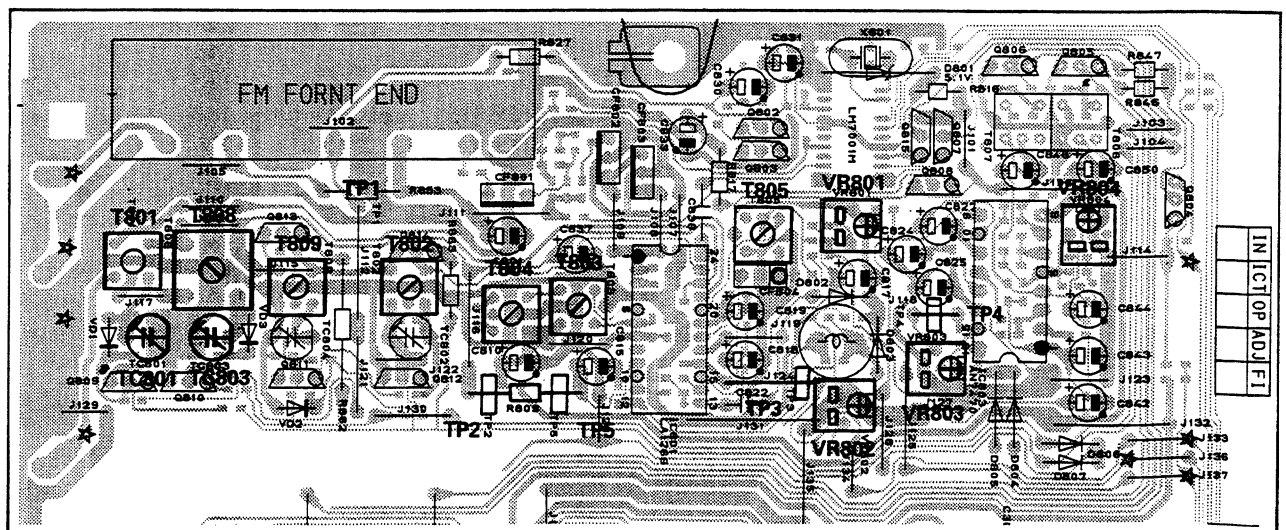
ALIGNMENT PROCEDURES

1. Equipment Required

- AM Standard Signal Generator (AM SSG)
- Oscilloscope
- AC Voltmeter
- FM Standard Signal Generator (FM SSG)
- Stereo Modulator
- Audio Generator
- Distortion Meter
- DC Voltmeter
- Frequency Counter

Note: Disconnect external FM antenna prior to alignment.

2. Alignment and Test Points (PCB1)

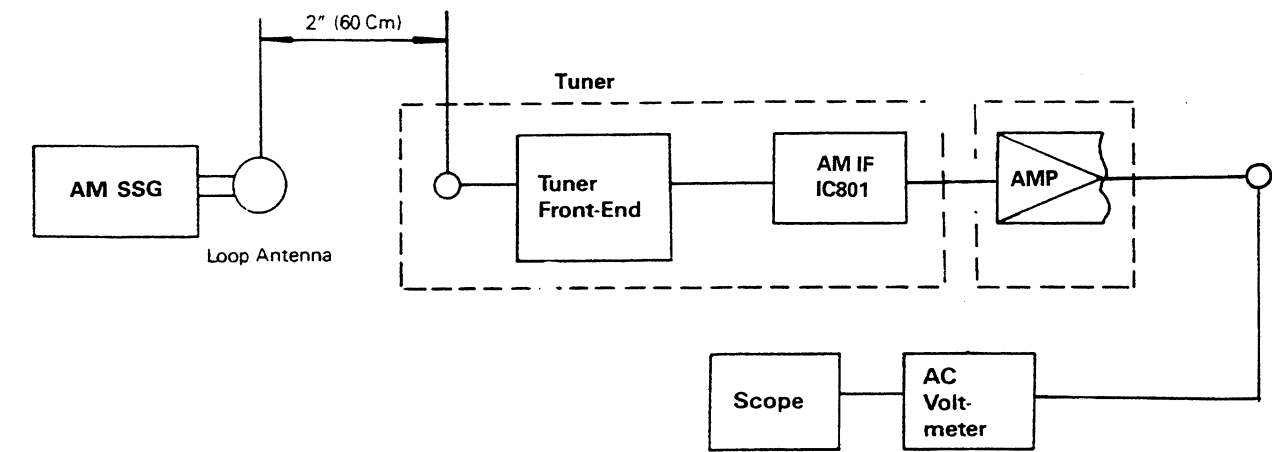


3. AM IF and RF Alignment

Preparation

- 1. Output of Signal Generator should not be higher than necessary to obtain an optimum output reading.

Step	Signal Generator Frequency	Receiver Frequency on the Display	Equipment Connection	Adjustment point	Adjust for
1	999 kHz (400 Hz, Mod.)	522 kHz	DC Voltmeter TP1	T802	1.1 V reading
	207 kHz (400 Hz, Mod.)	153 kHz	DC Voltmeter TP1	T809	1.8 V reading
2	594 kHz (400 Hz, Mod.)	594 kHz	AC Voltmeter to speaker terminal	T801 (ANT Coil)	Maximum reading
3	1404 kHz (400 Hz, Mod.)	1404 kHz	AC Voltmeter to speaker terminal	T801 (ANT Trimmer)	Maximum reading
4	450 kHz (400 Hz, Mod.)	999 kHz	AC Voltmeter to speaker terminal	T805 (IFT)	Maximum reading
5	999 kHz (400 Hz, Mod.)	999 kHz	DC Voltmeter TP3	VR801	FL display 'TUNED' Indication on receiver with AM SSG output level of 800µV/m 1.4V reading
6	162 kHz (400 Hz, Mod.)	162 kHz	speaker terminal	T808	Maximum reading
7	252 kHz (400 Hz, Mod.)	252 kHz	speaker terminal	TC803	Maximum reading



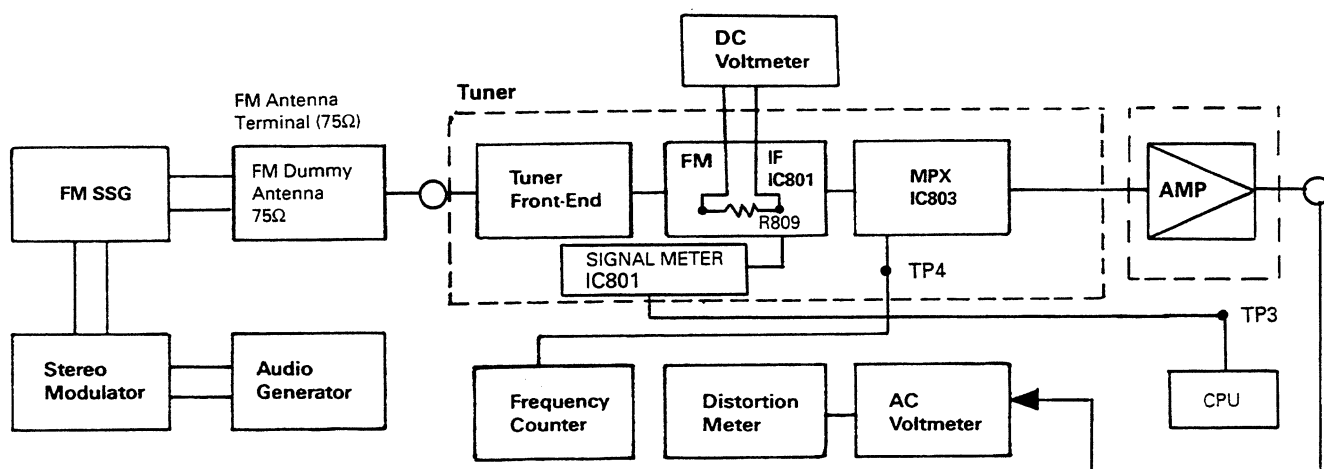
AM Alignment Connection

4. FM IF Alignment

Preparation

- 1. Signal Generator output should be no higher than necessary to obtain an optimum output reading.
- 2. Switch Press to FM.
- 3. Signal generator deviation : 40 kHz (D, PT Version) or 75kHz (A, KS Version)

Step	Signal Generator Frequency	Receiver Frequency on the Display	Equipment Connection	Adjustment point	Adjust for
1	98.0 MHz (1 kHz, Mod.)	98.0 MHz	Distortion meter to speaker terminal	T804	Maximum distortion
2	98.0 MHz (1 kHz, Mod.)	98.0 MHz	DC Voltmeter to TP3	VR802	FL display 'TUNED' Indication on receiver with FM SSG output level of 10 μ V 1.3V reading
3	98.0 MHz (1 kHz, Mod.)	98.0 MHz	DC Voltmeter to TP2 & TP5	T803	Zero reading on DC voltmeter.



FM RF/IF and MPX Alignment Connection

5. MPX Alignment

Preparation

1. Switch: Press to FM.
2. Tuner for 98 MHz on band.
3. Signal Generator output level: 1000 μ V.
4. Deviation: 40 kHz (D, PT Version) or 75 kHz (A, KS Version) at 100% modulation of composite signal.
5. Connect Signal Generator to FM antenna terminal through FM dummy antenna (75 Ω).

Step	19 kHz Modulation Level	Signal Generator Frequency Setting	Equipment Connection	Adjustment point	Adjust for
1	Pilot off	Carrier only	Frequency counter connect to TP4	VR803	76 kHz \pm 50 Hz
2	8% Mod.	Composite to channel 1 kHz R	AC voltmeter to R channel speaker terminal	-	Setting 0dB reference
3	8% Mod.	Composite to channel 1 kHz L	AC voltmeter to R channel speaker terminal	VR804	AC voltmeter reading should be at least 40 dB below.
4	8% Mod.	Composite to channel 1 kHz R	AC voltmeter to R channel speaker terminal	VR804	Same as Step 3.
If you could not obtain -40 dB readings in Steps 3 and 4 (compared with Step 2), readjust VR804 until you obtain -40 dB readings for both Steps 3 and 4. Nominal is -45dB.					

TROUBLESHOOTING

Symptom	Cause and Remedy
Unit inoperative (FL indicator does not light)	<p>A) Filament resistor R723 or R722 is Blown. Replace the resistor.</p> <p>B) Check the CNT104 (Pin No. 1, 2, 3) and CNT701 (Pin No. 1, 2, 3).</p>
FM inoperative	<p>A) Defective front-end. Replace.</p> <p>B) Defective FM switch. Replace the switch.</p> <p>C) PLL IC(LM7001) Malfunction. Replace the IC(LM7001).</p> <p>D) Defective coil T803 or T804. Replace the coil(s).</p> <p>E) Defective lead-in. Repair or replace the lead-in.</p> <p>F) Ceramic filter CF801, CF802 defective. Replace the defective ceramic filter(s).</p> <p>G) Defective controller circuit component. Replace.</p>
Poor multiplex separation	<p>A) Improper adjustment. Readjust VR803 and VR804. (Refer to MPX Alignment.)</p> <p>B) IC803 defective. Replace.</p> <p>C) Variable resistor VR803 or VR804 defective. Replace the variable resistor(s).</p>
STEREO indicator does not light	<p>A) Defective indicator in FL. Replace.</p> <p>B) Improper adjustment of VR803 of tuner board. Make readjustment.</p> <p>C) Defective IC803 Replace the defective component.</p>
FM volume not sufficient	<p>A) If volume from both L and R channels is not loud enough: Front - end section defective. Faulty C801, Coil T803. Defective C838 of tuner Board. If sound of one channel is not loud enough: Defective T806, T807</p>
FM Mono has no effect	<p>A) Defective FM MODE switch. Replace.</p>

Symptom	Cause and Remedy
AM inoperative	<p>A) Damaged IC801 of tuner board. Replace.</p> <p>B) Defective T801, T802, T805 or CF804 of tuner board. Replace the defective component(s).</p> <p>C) Resistor R829, R822 defective. Replace the defective component(s).</p> <p>D) Capacitor C857, C818, C822 defective. Replace the defective capacitor(s).</p> <p>E) Defective AM switch. Replace.</p> <p>F) Defective varicap diode VD1, VD2. Replace Varicap diode(s).</p> <p>G) Damaged AM loop antenna. Repair or replace.</p> <p>H) Defective controller circuit component. Replace.</p>
Auto tune inoperative (UP/DOWN)	<p>A) Poor contact in Up/Down key. Repair or replace.</p> <p>B) Defective IC701. Replace.</p> <p>C) Defective tuner circuit component. Replace.</p> <p>D) In case of FM only, improper adjustment of FM front-end. Readjust.</p>
Manual tune inoperative(UP/DOWN) (AM or FM)	<p>A) Poor contact in Up/Down key. Replace.</p> <p>B) Defective IC701. Replace.</p>
Memory setting inoperative	<p>A) Poor contact in memory set key. Replace.</p> <p>B) Defective IC701. Replace the defective component.</p>
FL inoperative	<p>A) FL defective. Replace.</p> <p>B) Defective IC701. Replace.</p> <p>C) Defective X701. Replace.</p>
Remote Control Unit inoperative	<p>A) Weak Battery. Replace.</p> <p>B) Defective. Replace.</p> <p>C) Defective IC701(CPU). Replace.</p>

MECHANICAL PARTS LIST

Model No. : TX-757

Ref. No.	Description	Part No.	Q'ty	Version
	PACKAGE			
	Box Carton	049605258301	1	KS
	Box Carton	049605258304	1	D,PT INDO A
	Poly Bag	9705001550	1	
	Cushion Poly	9722041410	1	
	Film Soft PE	9715000120	1	
	ACCESSORIES			
	Assembly Commander	541810127015	1	KS
	Assembly Commander	541810127025	1	D,PT INDO A
	Battery 1.5V AA(R6M)	5518001610	1	KS
	FM Antenna Wire Dipole	4348000320	1	KS,PT INDO A
	FM Antenna Cord	4348001110	1	D
	Cord RCA, 1P	4328206410	1	KS,PT INDO
	Manual Instruction	9007018440	1	KS
	Manual Instruction	9007018441	1	PT INDO
	Manual Instruction	9007018451	1	D
	Manual Instruction	9007018443	1	A
	Antenna AM Loop Stand Strip Wire	2608207361	1	KS,PT INDO A
	Antenna AM Loop Stand Type	2608207360	1	D
	CABINET & CHASSIS			
1	Badge, INKEL	048535045411	1	KS
(1)	Badge, SHERWOOD	048535045421	1	A,D,PT INDO
2	Panel Front	048602020111	1	KS
(2)	Panel Front	048602020131	1	A,D,PT INDO
3	Window Display	048553023512	1	
4	Body Front	048521009511	1	
5	Button Function	048543070012	1	
6	Button Input, 1 key	048545131311	2	
7	Button Mode, 2 key	048545131411	1	
8	Jack Phone	4438005510	1	KS,PT INDO
(8)	Not Used !			A,D
9	Shield Fence	6165146110	1	KS,PT INDO
(9)	Not Used !			A,D
10(VR401)	Volume Mic	3208052410	1	KS,PT INDO
(10)	Not Used !			A,D
11	Foot & Rubber	6035104310	2	
12	Fastener, 12H	6528301710	2	KS,PT INDO
(12)	Fastener, 12H	6528301710	1	A,D
13	Fastener, 19H	6528300210	2	
14	Spacer PCB	6705004220	1	
15	Cushion Foot	6715021230	2	
16	Chassis Main	6121614930	1	
17	Heatsink Regulator TR	7505206210	1	
18	Jack RCA, 2P	4438103020	1	
19	Jack RCA, 9P	4438114510	1	
20	Jack RCA, 2P	4438103010	1	
21	Terminal Antenna, 4P	4408107120	1	A,KS,PT INDO
(21)	Terminal Antenna, 4P	4408108220	1	D
22	Shield Plate	6165151910	1	A,KS,PT INDO
(22)	Not Used !			D
23	Stopper Connector	6518002210	1	
24	Stopper Connector	6518002110	1	
25	Chassis Back	046102045411	1	KS
(25)	Chassis Back	046102045491	1	PT INDO
(25)	Chassis Back	046102045421	1	A
(25)	Chassis Back	046102045451	1	D
26	Cover Top	046123018011	1	
27	Shield Fence, Front-end	6163115510	1	A,KS,PT INDO
(27)	Not Used !			D
28	Switch Tact	4658003710	14	
29	Switch Tact	4658004010	1	
30	Sponge Rubber	6715012010	1	
31	Knob Rotary	048545131511	1	KS,PT INDO
(31)	Not Used !			A,D
	HARDWARE KIT			
S1	Screw, #2FTC 3x8B	8129230083	5	
S2	Screw, #8BTT 3x8B	8179130083	32	KS,PT INDO
(S2)	Screw, #8BTT 3x8B	8179130083	31	A,D
S3	Screw, Mecha	8155001210	2	KS,PT INDO
(S3)	Not Used !			A,D
S4	Screw, #BWPTT 3x6Y	8179230061	3	
S5	Screw, #2WPTC 3x14Y	8159230141	1	
	MISCELLANEOUS			
	Card Cable, 13P, 140mm	4118613145	1	
	Card Cable, 20P, 200mm	4118620205	1	
	Connector, System, 13P, 500mm	4358613501	1	
	Connector, System, 9P, 500mm	4358609501	1	
PCB1	P.C.Board Main	4004001500	1	
PCB2	P.C.Board Mic (KS, PT INDO AREA ONLY)	4004001530	1	
PCB3	P.C.Board Power	4005512700	1	
PCB4	P.C.Board Front	4004001510	1	
PCB5	P.C.Board RMC	4004001520	1	

Model No. : TX-747

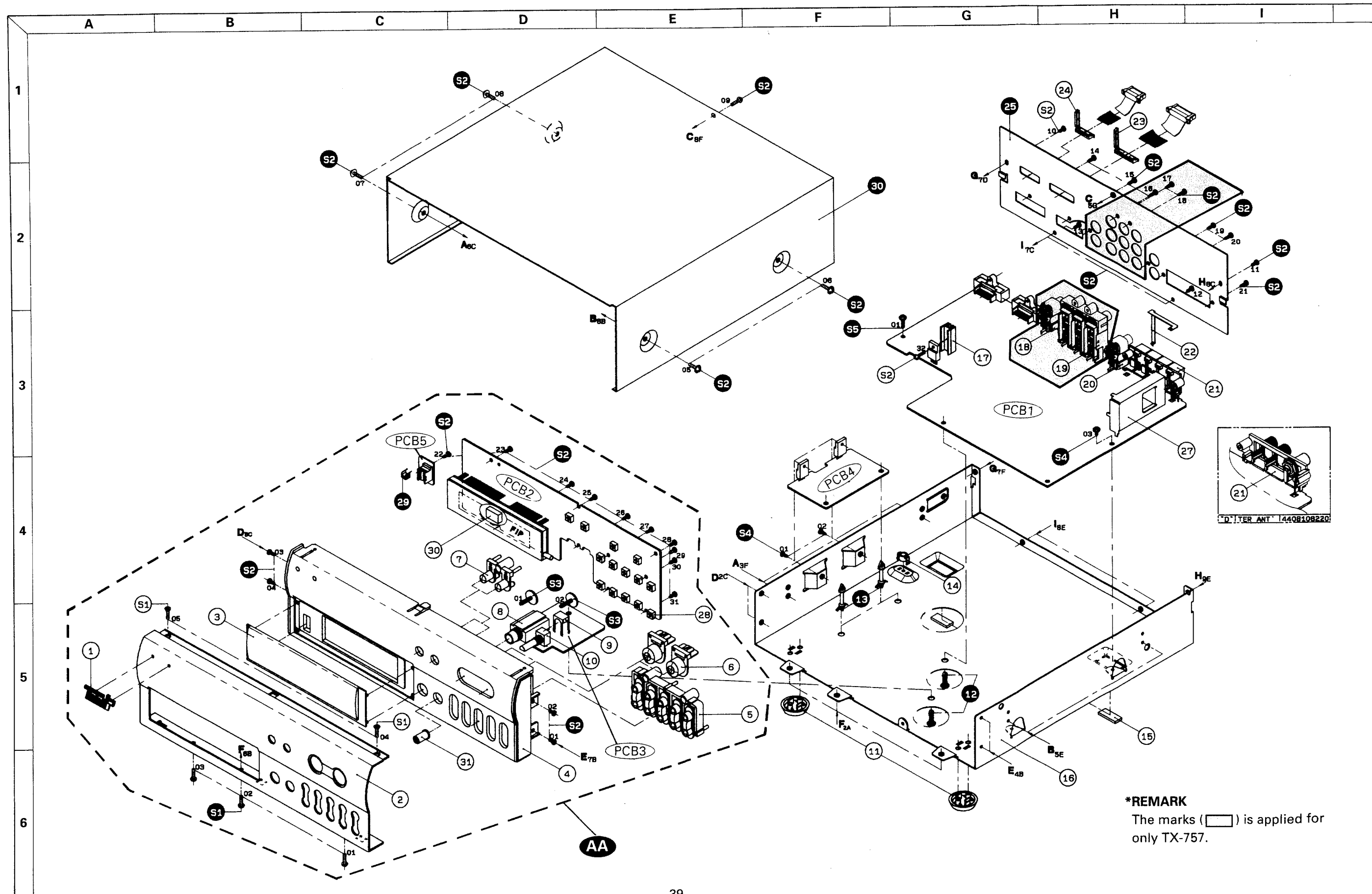
Ref. No.	Description	Part No.	Q'ty	Version
	PACKAGE			
	Box Carton	049605258301	1	KS
	Box Carton	049605258304	1	D,PT INDO
	Poly Bag	9705001550	1	
	Cushion Poly	9722041410	1	
	Film Soft PE	9715000120	1	
	ACCESSORIES			
	Assembly Commander	41810126015	1	KS
	Assembly Commander	41810126025	1	D,PT INDO
	Battery 1.5V AA(R6M)	5518001610	1	KS
	FM Antenna Wire Dipole	4348000320	1	KS,PT INDO
	FM Antenna Cord	4348001110	1	D
	Cord RCA, 1P	4328206410	1	KS,PT INDO
	Manual Instruction	9007018450	1	KS
	Manual Instruction	9007018452	1	PT INDO
	Manual Instruction	9007018451	1	D
	Antenna AM Loop Stand Strip Wire	2608207361	1	KS,PT INDO
	Antenna AM Loop Stand Type	2608207360	1	D
	CABINET & CHASSIS			
1	Badge, INKEL	04853504541	1	KS
(1)	Badge, SHERWOOD	04853504542	1	A,D,PT INDO
2	Panel Front	04860202012	1	A,KS,PT INDO
(2)	Panel Front	04860202014	1	D
3	Window Display	04855302351	1	
4	Body Front	04852100951	1	
5	Button Function	04854307001	1	
6	Button Input, 1 key	04854513131	2	
7	Not Used !			
8	Jack Phone	4438005510	1	
9	Shield Fence	6165146110	1	
10	Volume Mic	3208052410	1	
11	Foot & Rubber	6035104310	2	
12	Fastener, 12H	6528301710	2	
13	Fastener, 19H	6528300210	2	
14	Spacer PCB	6705004220	1	
15	Cushion Foot	6715021230	2	
16	Chassis Main	6121614930	1	
17	Heatsink Regulator TR	7505206210	1	A,KS,PT INDO
(17)	Not Used !			D
18	Not Used !			
19	Not Used !			
20	Jack RCA, 2P	4438103010	1	
21	Terminal Antenna, 4P	4408107120	1	A,KS,PT INDO
(21)	Terminal Antenna, 4P	4408108220	1	D
22	Shield Plate	6165151910	1	A,KS,PT INDO
(22)	Not Used !			D
23	Stopper Connector	6518002210	1	
24	Stopper Connector	6518002110	1	
25	Chassis Back	046102045311	1	KS,PT INDO
(25)	Chassis Back	046102045391	1	A
(25)	Chassis Back	046102045351	1	D
26	Cover Top	046123018011	1	
27	Shield Fence, Front-end	6163115510	1	A,KS,PT INDO
(27)	Not Used !			D
28	Switch Tact	4658003710	11	
29	Switch Tact	4658004010	1	
30	Sponge Rubber	6715012010	1	
31	Knob Rotary	048545131511	1	A,KS,PT INDO
(31)	Not Used !			D
	HARDWARE KIT			
S1	Screw, #2FTC 3x8B	8129230083	5	
S2	Screw, #8BTT 3x8B	8179130083	29	KS,PT INDO
(S2)	Screw, #8BTT 3x8B	8179130083	28	A,D
S3	Screw, Mecha	8155001210	2	A,KS,PT INDO
(S3)	Not Used !			D
S4	Screw, #BWPTT 3x6Y	8179230061	3	
S5	Screw, #2WPTC 3x14Y	8159230141	1	
	MISCELLANEOUS			
	Card Cable, 20P, 200mm	4118620205		
	Connector, System, 13P, 500mm	4358613501		
	Connector, System, 9P, 500mm	4358609501		
PCB1	P.C.Board Main	4004001500		
PCB2	P.C.Board Mic (KS, PT INDO AREA ONLY)	4004001530		
PCB3	P.C.Board Power	4005512700		
PCB4	P.C.Board Front	4004001510		
PCB5	P.C.Board RMC	4004001520		

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚡ in the parts list are of special significance to safety. When replacing a component identified with ⚡, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

EXPLODED VIEW

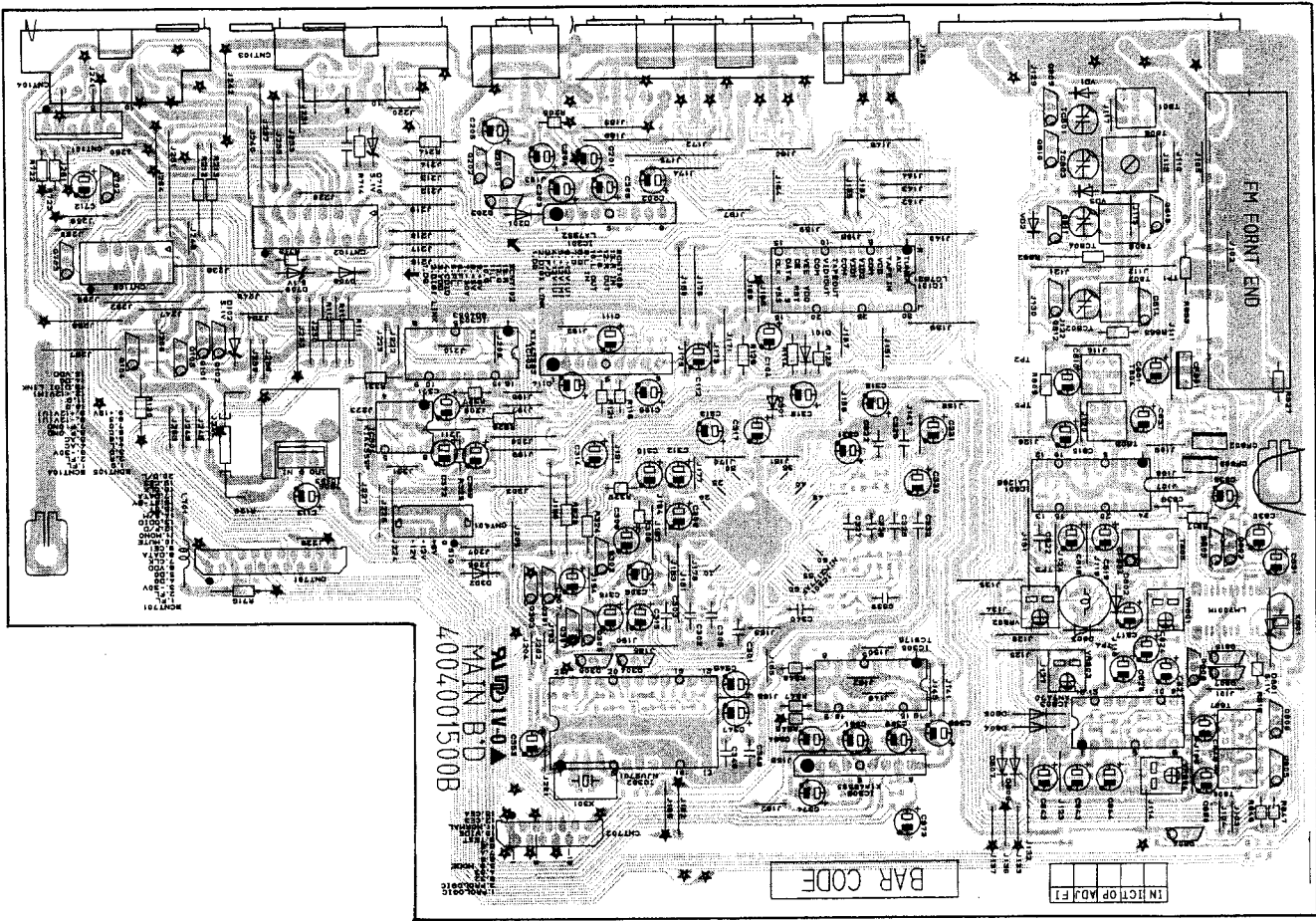
Model No : TX-757/747



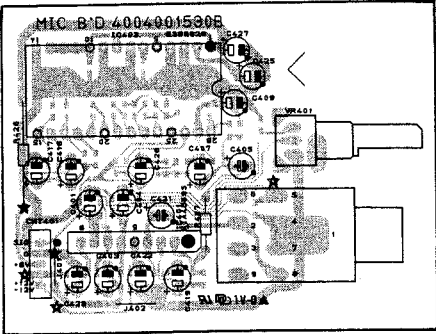
PRINTED CIRCUIT BOARDS

Model No : TX-757/747

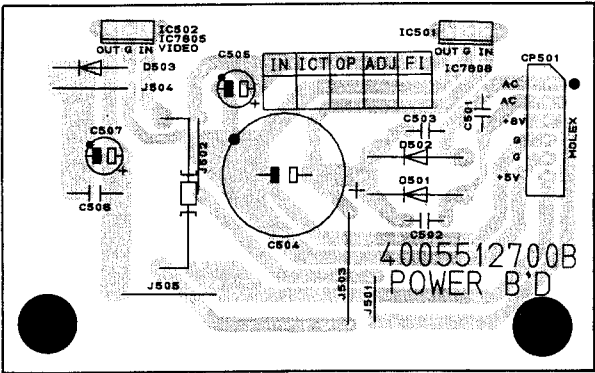
MAIN (PCB1)



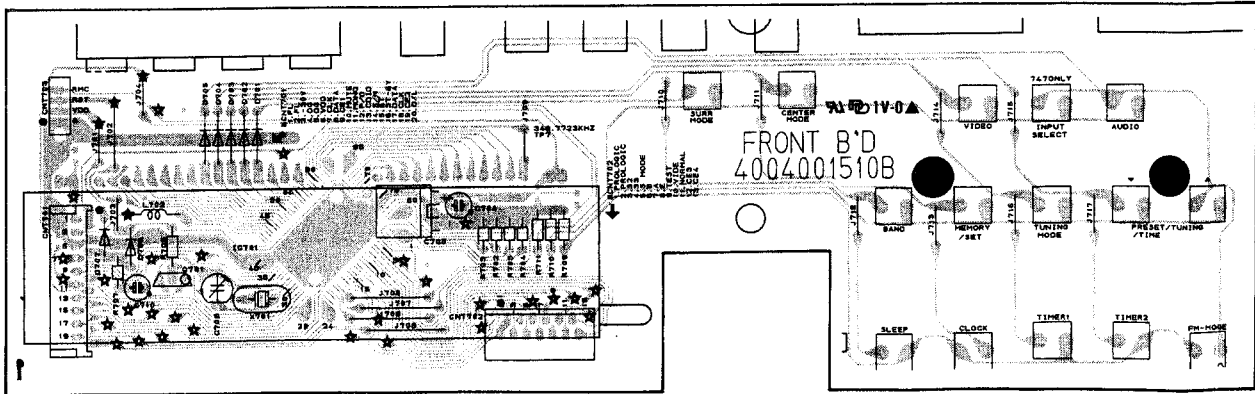
MIC (PCB3)



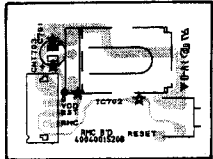
POWER (PCB4)



FRONT (PCB2)



RMC (PCB5)



ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTICE : Products marked with Δ have special characteristics important to safety.
If you replace any of these components, read carefully the product safety notice in this manual.
Don't degrade the safety of the product through improper servicing.
Resistor/Capacitor tolerance – D : ($\pm 0.5\%$), J : ($\pm 5\%$), K : ($\pm 10\%$), M : ($\pm 20\%$), Z : +80, – 20%)

Model No. : TX-757

Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
PCB1 ASSEMBLY P.C. BOARD MAIN					PCB1 ASSEMBLY P.C. BOARD MAIN				
CAPACITORS					CAPACITORS				
C100/C101	Chip	0.1	uF	50 V Z	3539104060	2			
C102	Chip, CH	100	pF	50 V J	3539101210	1			
C103	Chip	0.047	uF	50 V Z	3539473060	1			
C104	Electrolytic SG	1	uF	50 V M	3479310971	1			
C105	Chip	0.047	uF	50 V Z	3539473060	1			
C107	Chip, CH	220	pF	50 V J	3539221210	1			KS,PT INDO
(C107)	Not Used !								D.A
C108	Electrolytic SG	10	uF	35 V M	3479310061	1			
C110	Chip, CH	220	pF	50 V J	3539221210	1			KS,PT INDO
(C110)	Not Used !								D.A
C111/C112	Electrolytic SG	47	uF	16 V M	3479347031	2			
C113	Electrolytic SG	4.7	uF	50 V M	3479347971	1			
C114	Electrolytic SG	10	uF	35 V M	3479310061	1			
C115-C128	Chip, CH	100	pF	50 V J	3539101210	14			D
(C115-C128)	Not Used !								KS,PT INDO,A
C201-C203	Electrolytic SG	10	uF	35 V M	3479310061	3			
C204/C205	Electrolytic SG	470	uF	10 V M	3479347121	2			
C206	Electrolytic SG	100	uF	16 V M	3479310131	1			
C207	Chip	0.047	uF	50 V Z	3539473060	1			
C301	Mylar	0.047	uF	100 V J	3679473120	1			
C302/C303	Mylar	0.1	uF	63 V K	3679104297	2			
C304	Chip, CH	680	pF	50 V J	3539681210	1			
C305	Mylar	0.047	uF	100 V J	3679473120	1			
C306	Electrolytic SG	22	uF	16 V M	3479322031	1			
C307-C309	Electrolytic SG	10	uF	35 V M	3479310061	3			
C310	Electrolytic SG	22	uF	16 V M	3479322031	1			
C311	Chip	0.005	uF	50 V K	3539472820	1			
C312	Electrolytic SG	4.7	uF	50 V M	3479347871	1			
C313/C314	Electrolytic SG	4.7	uF	50 V M	3479347971	2			
C315	Electrolytic SG	0.22	uF	50 V M	3479322871	1			
C316	Electrolytic SG	10	uF	35 V M	3479310061	1			
C317	Electrolytic SG	220	uF	16 V M	3479322131	1			
C318	Electrolytic SG	4.7	uF	50 V M	3479347971	1			
C319	Electrolytic SG	4.7	uF	50 V M	3479347971	1			
C320	Chip	0.006	uF	50 V K	3539562820	1			
C321	Electrolytic SG	220	uF	10 V M	3479322121	1			
C322	Mylar	0.047	uF	100 V J	3679473120	1			
C323	Chip, CH	470	pF	50 V J	3539471210	1			
C324	Chip	0.005	uF	50 V J	3539472820	1			
C325	Chip	0.006	uF	50 V K	3539562820	1			
C326	Mylar	0.68	uF	63 V K	3679684297	1			
C327-C329	Mylar	0.22	uF	63 V K	3679224297	3			
C330/C331	Electrolytic SG	4.7	uF	50 V M	3479347971	2			
C332	Mylar	0.22	uF	63 V K	3679224297	1			
C333-C336	Chip	0.1	uF	50 V Z	3539104060	4			
C337/C338	Chip	0.022	uF	50 V K	3539223820	2			
C339/C340	Mylar	0.1	uF	63 V K	3679104297	2			
C341	Chip, CH	680	pF	50 V J	3539681210	1			
C342	Chip	0.006	uF	50 V K	3539562820	1			
C343	Electrolytic SG	1	uF	50 V M	3479310971	1			
C344	Chip	0.006	uF	50 V K	3539562820	1			
C345	Chip, CH	470	pF	50 V J	3539471210	1			
C346	Chip	0.1	uF	50 V Z	3539104060	1			
C347	Electrolytic SG	47	uF	16 V M	3479347031	1			
C348/C349	Mylar	0.047	uF	100 V J	3679473120	2			
C350	Chip	0.1	uF	50 V Z	3539104060	1			
C351	Chip	0.003	uF	50 V K	3539332820	1			
C352	Chip, CH	470	pF	50 V J	3539471210	1			
C353	Electrolytic SG	220	uF	10 V M	3479322121	1			
C354	Chip	0.1	uF	50 V Z	3539104060	1			
C355/C356	Chip, CH	270	pF	50 V J	3539271210	2			
C357/C358	Chip, CH	100	pF	50 V J	3539101210	2			
C359	Electrolytic SG	4.7	uF	50 V M	3479347971	1			
C360	Chip	0.1	uF	50 V Z	3539104060	1			
C361	Electrolytic SG	47	uF	16 V M	3479347031	1			
C362	Chip, CH	100	pF	50 V J	3539101210	1			
C363	Chip, CH	680	pF	50 V J	3539681210	1			
C364	Electrolytic SG	0.47	uF	50 V M	3479347871	1			
C365	Chip	0.1	uF	50 V Z	3539104060	1			
C366	Electrolytic SG	47	uF	16 V M	3479347031	1			
C367	Chip, CH	100	pF	50 V J	3539101210	1			

Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
CONNECTORS					R121	Metal Film	4.7 kohm 1/5 W J	3029472970	1 KS,PT INDO
CNT101	Lead Ass'y, 6P, 160mm	436106163761	1		(R121)	Not Used !			D.A
CNT102	Wafer, 13P	4428525340	1		R122	Chip	4.7 kohm 1/10 W J	3099472870	1 KS,PT INDO
CNT103	Wafer, 13P	4428513820	1		(R122)	Chip	0 ohm 1/10 W J	3099000870	1 D.A
CNT104	Wafer, 15P	4428515820	1		R123	Chip	2.2 kohm 1/10 W J	3099222870	1 KS,PT INDO
CNT105	Wafer, 9P	4428525300	1		(R123)	Chip	1 kohm 1/10 W J	3099102870	1 D.A
CNT401	Wire Trap, 5P	4428531105	1	KS,PT INDO	R124	Chip	2.4 kohm 1/10 W J	3099242870	1 KS,PT INDO
(CNT401)	Not Used !			D.A	(R124)	Not Used !			D.A
CNT701	Wafer, FPC, 20P	4426001020	1		R125/R126	Metal Film	100 ohm 1/5 W J	3029101970	2
CNT702	Wafer, FPC, 13P	4426001013	1		R127	Chip	47 kohm 1/10 W J	3099473870	1
DIODES					R128	Chip	3.3 kohm 1/10 W J	3099332870	1
D101	1N4148, Switching	2058322101	1		R129	Metal Film	22 ohm 1 W J	3029220470	1
D102	Zener, UZ 5.1 BSB	2258599103	1		R130	Carbon Film	10 kohm 1/5 W J	3069103970	1
D201	1N4148, Switching	2058322101	1		R201	Chip	22 ohm 1/10 W J	3099220870	1
D301/D302	1N4148, Switching	2058322101	2		R202-R204	Chip	68 ohm 1/10 W J	3099680870	3
D708	1N4148, Switching	2058322101	1		R205	Metal Film	68 ohm 1/5 W J	3029680970	1
D709/D710	Zener, UZ 5.1 BSB	2258599103	2		R206	Chip	47 kohm 1/10 W J	3099473870	1
D801	Zener, UZ 5.1 BSB	2258599103	1		R207	Chip	68 ohm 1/10 W J	3099680870	1
D802-D805	1N4148, Switching	2058322101	4		R208	Chip	47 kohm 1/10 W J	3099473870	1
D806/D807	1N4148, Switching	2058322101	2	D	R209/R210	Chip	390 ohm 1/10 W J	3099391870	2
(D806/D807)	Not Used !			KS,PT INDO,A	R211	Chip	3.3 kohm 1/10 W J	3099332870	1
VD1/VD2	Varactor, SVC321SPA-C	2258817104	2		R212/R213	Metal Film	1 kohm 1/5 W J	3029102970	2
VD3	Varactor, SVC321SPA-C	2258817104	1	D	R301	Chip	6.8 kohm 1/10 W J	3099682870	1
(VD3)	Not Used !			KS,PT INDO,A	R302	Chip	47 kohm 1/10 W J	3099473870	1
INTEGRATED CIRCUITS					R303	Chip	15 kohm 1/10 W J	3099153870	1
IC101	LC7821	2168017132	1		R304	Chip	2.2 Mohm 1/10 W J	3099225870	1
IC102	KIA4559S/KIA75559S	2168206103	1		R305	Chip	47 kohm 1/10 W J	3099473870	1
IC103	KIA7806PI, Regulator	2168606110	1		R306	Carbon Film	47 kohm 1/5 W J	3069473970	1
IC201	LA7952, Video Switch	2168317136	1		R307-R309	Chip	100 kohm 1/10 W J	3099104870	3
IC301	NJM2177AFB3	2169020000	1		R311	Chip	27 ohm 1/10 W J	3099270870	1
IC302	NJU9701	2168020117	1		R314	Chip	100 kohm 1/10 W J	3099104870	1
IC303	GD4053B	2138001117	1		R315	Chip	15 kohm 1/10 W J	3099153870	1
IC304	KIA4559P/KIA75559P	2168206104	1		R316/R317	Chip	8.2 kohm 1/10 W J	3099822870	2
IC305	TC9176P	2138007124	1		R318	Chip	6.8 kohm 1/10 W J	3099682870	1
IC306	KIA4559S/KIA75559S	2168206103	1		R319	Chip	330 kohm 1/10 W J	3099334870	1
IC801	LA1266	2168017128	1		R320	Chip	6.8 kohm 1/10 W J	3099682870	1
IC802	LM7001M	2138017136	1		R321	Chip	47 kohm 1/10 W J	3099473870	1
IC803	AN7470	2168410101	1		R322	Chip	15 kohm 1/10 W J	3099153870	1
TRANSISTORS					R323/R324	Metal Film	1 kohm 1/5 W J	3029102970	2
Q101	DTC114YS	2208622106	1		R325	Metal Film	1.5 kohm 1/5 W J	3029152970	1
Q102	KRA107M/MDTA114YS	2238006103	1		R326	Chip	1.5 kohm 1/10 W J	3099152870	1
Q103	KTA1273/KTA966A, PNP	2228106104	1		R327/R328	Carbon Film	33 kohm 1/5 W J	3069333970	2
Q104	BKTC3199Y, NPN	2208610109	1		R329	Carbon Film	180 kohm 1/5 W J	3069184970	1
Q201/Q202	BKTC3199Y, NPN	2208610109	2		R330	Chip	15 kohm 1/10 W J	3099153870	1
Q203	DTC114TS	2208622108	1		R331	Metal Film	1 kohm 1/5 W J	3029102970	1
Q301/Q302	DTC323TS, NPN	2238422100	2		R332	Chip	8.2 kohm 1/10 W J	3099822870	1
Q303-Q305	KRA107M/MDTA114YS	2238006103	3		R333	Chip	6.8 kohm 1/10 W J	3099682870	1
Q306/Q307	DTC114TS	2208622108	2		R334	Chip	18 kohm 1/10 W J	3099183870	1
Q702/Q703	DTC114TS	2208622108	2		R335	Chip	5.6 kohm 1/10 W J	3099562870	1
Q801	Chip, KTC3880	2207606002	1		R336/R337	Chip	22 ohm 1/10 W J	3099220870	2
Q802/Q803	BKTC3199Y, NPN	2208610109	2		R338	Chip	15 kohm 1/10 W J	3099153870	1
Q804	KRA107M/MDTA114YS	2238006103	1		R339	Chip	18 kohm 1/10 W J	3099183870	1
Q805/Q806	BKTC3199Y, NPN	2208610109	2		R340	Chip	15 kohm 1/10 W J	3099153870	1
Q807/Q808	KRA107M/MDTA114YS	2238006103	2		R341	Chip	22 ohm 1/10 W J	3099220870	1
Q809-Q814	BKTC3199Y, NPN	2208610109	6	D	R342	Chip	1 Mohm 1/10 W J	3099105870	1
(Q809-Q814)	Not Used !			KS,PT INDO,A	R343/R344	Chip	1 kohm 1/10 W J	3099102870	2
Q815	KRA107M/MDTA114YS	2238006103	1	D	R345	Chip	4.7 kohm 1/10 W J	3099472870	1
(Q815)	Not Used !			KS,PT INDO,A	R346/R347	Metal Film	1 kohm 1/5 W J	3029102970	2
RESISTORS					R348	Metal Film	4.7 kohm 1/5 W J	3029472970	1
R101-R106	Chip	1 kohm 1/10 W J	6		R349	Chip	100 kohm 1/10 W J	3099104870	1
R107	Chip	5.6 kohm 1/10 W J	1	KS,PT INDO	R350	Chip	1.8 kohm 1/10 W J	3099182870	1
(R107)	Chip	3.3 kohm 1/10 W J	1	D.A	R351	Chip	8.2 kohm 1/10 W J	3099822870	1
R108	Chip	5.6 kohm 1/10 W J	1	KS,PT INDO	R352	Chip	100 kohm 1/10 W J	3099104870	1
(R108)	Not Used !			D.A	R353	Chip	1.8 kohm 1/10 W J	3099182870	1
R109	Chip	5.6 kohm 1/10 W J	1	KS,PT INDO	R354	Chip	8.2 kohm 1/10 W J	3099822870	1
(R109)	Chip	3.3 kohm 1/10 W J	1	D.A	R355/R356	Chip	330 ohm 1/10 W J	3099331870	2
R110	Chip	5.6 kohm 1/10 W J	1	KS,PT INDO	R358	Chip	100 kohm 1/10 W J	3099104870	1
(R110)	Not Used !			D.A	R359	Chip	10 kohm 1/10 W J	3099103870	1
R111-R113	Metal Film	1 kohm 1/5 W J	3		R712	Chip	22 kohm 1/10 W J	3099223870	1
R114	Carbon Film	100 kohm 1/5 W J	1		R713	Carbon Film	220 kohm 1/5 W J	3069224970	1
R115	Chip	51 kohm 1/10 W J	1		R714	Carbon Film	100 kohm 1/5 W J	3069104970	1
R116	Metal Film	4.7 kohm 1/5 W J	1	KS,PT INDO	R715	Chip	4.7 kohm 1/10 W J	3099472870	1
(R116)	Not Used !			D.A	R716	Carbon Film	5.6 kohm 1/5 W J	3069562970	1
R117	Chip	4.7 kohm 1/10 W J	1	KS,PT INDO	R717/R718	Chip	5.6 kohm 1/10 W J	3099562870	2
(R117)	Chip	0 ohm 1/10 W J	1	D.A	R719-R721	Chip	1 kohm 1/10 W J	3099102870	3
R118	Chip	2.2 kohm 1/10 W J	1	KS,PT INDO	R722/R723	Metal Film	3.3 ohm 1/5 W J	3029339970	2
(R118)	Chip	1 kohm 1/10 W J	1	D.A	R801	Chip	100 ohm 1/10 W J	3099101870	1
R119	Chip	2.4 kohm 1/10 W J	1	KS,PT INDO	R802	Chip	1 kohm 1/10 W J	3099102870	1
(R119)	Not Used !			D.A	R803	Chip	560 ohm 1/10 W J	3099561870	1
R120	Chip	51 kohm 1/10 W J	1		R804	Chip	3.3 kohm 1/10 W J	3099332870	1
					R805	Chip	330 ohm 1/10 W J	3099331870	1
					R806	Chip	470 ohm 1/10 W J	3099471870	1 KS,D.A
					(R806)	Chip	330 ohm 1/10 W J	3099331870	1 PT INDO
					R807	Chip	10 kohm 1/10 W J	3099103870	1
					R808	Chip	3.3 kohm 1/10 W J	3099332870	1

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Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
R809	Carbon Film	18 kohm 1/5 W J	3069183970	1	KS,A	VR803	5 kohm (B)	3248050243	1										
(R809)	Carbon Film	47 kohm 1/5 W J	3069473970	1	D,PT INDO	VR804	200 kohm	3248020443	1										
R810	Chip	22 ohm 1/10 W J	3099220870	1															
R811	Chip	2.4 kohm 1/10 W J	3099243870	1															
R812	Chip	10 kohm 1/10 W J	3099103870	1		X301	Resonator, CSA2.00MG-TF21	3938124001	1										
R813	Chip	68 kohm 1/10 W J	3099683870	1		X801	Crystal, 7.2MHz	3978101031	1										
R814	Chip	4.7 kohm 1/10 W J	3099472870	1		TC801	Trimmer, 10P	3838001140	1										
R815	Chip	33 ohm 1/10 W J	3099330870	1		TC803	Trimmer, 10P	3838001140	1	D									
R816	Metal Film	240 ohm 1/5 W J	3029241970	1		(TC803)	Not Used !			KS,PT INDO,A									
R817	Metal Film	330 ohm 1/5 W J	3029331970	1		17	Heatsink Regulator TR.	7505206210	1										
R818	Chip	2 kohm 1/10 W J	3099202870	1	KS,A	18	Jack RCA, 2P	4438103020	1										
(R818)	Chip	3.9 kohm 1/10 W J	3099392870	1	D,PT INDO	19	Jack RCA, 9P	4438114510	1										
R819	Chip	2.2 kohm 1/10 W J	3099222870	1		20	Jack RCA, 2P	4438103010	1										
R820	Chip	22 kohm 1/10 W J	3099223870	1	KS,PT INDO,A	21	Terminal Antenna, 4P	4408107120	1	A,KS,PT INDO									
(R820)	Chip	12 kohm 1/10 W J	3099123870	1	D	(21)	Terminal Antenna, 4P	4408108220	1	D									
R821	Chip	68 ohm 1/10 W J	3099680870	1		22	Shield Plate	6165151910	1	A,KS,PT INDO									
R822	Chip	100 kohm 1/10 W J	3099104870	1		(22)	Not Used !			D									
R823	Chip	47 kohm 1/10 W J	3099473870	1		27	Shield Fence, Front-end	6163115510	1	A,KS,PT INDO									
R824	Chip	1 kohm 1/10 W J	3099102870	1		(27)	Not Used !			D									
R825	Chip	560 ohm 1/10 W J	3099561870	1		FRONT-EN	Front -End, FTH4-460V	3928101850	1	D									
R826	Chip	10 kohm 1/10 W J	3099103870	1		FRONT-EN	ASSEMBLY P.C.BOARD FRONT END	054002009835	1	KS,PT INDO,A									
R827	Carbon Film	5.6 kohm 1/5 W J	3069562970	1		C81	CAP, CeramicTubular, 8.2 pF	50 V K	3511825235	1									
R828/R829	Chip	100 ohm 1/10 W J	3099101870	2		C83	CAP, CeramicTubular, 100 pF	50 V J	3519101935	1									
R831	Chip	47 kohm 1/10 W J	3099473870	1	KS,A	C84	CAP, CeramicTubular, 0.001 uF	50 V Z	3519102935	1									
(R831)	Chip	33 kohm 1/10 W J	3099333870	1	D,PT INDO	C85	CAP, CeramicTubular, 3.9 pF	50 V K	3511395235	1									
R832	Chip	22 kohm 1/10 W J	3099223870	1	KS,A	C86	CAP, CeramicTubular, 5.6 pF	50 V K	3511565235	1									
(R832)	Chip	27 kohm 1/10 W J	3099273870	1	D,PT INDO	C87	CAP, CeramicTubular, 2.2 pF	50 V K	3511225235	1									
R833	Chip	22 kohm 1/10 W J	3099223870	1	KS,A	C88	CAP, CeramicTubular, 18 pF	50 V J	3511186135	1									
(R833)	Chip	27 kohm 1/10 W J	3099273870	1	D,PT INDO	C89	CAP, CeramicTubular, 0.001 uF	50 V Z	3519102935	1									
R834	Chip	8.2 kohm 1/10 W J	3099822870	1	KS,A	C90	CAP, CeramicTubular, 8.2 pF	50 V K	3511825235	1									
(R834)	Chip	5.6 kohm 1/10 W J	3099562870	1	D,PT INDO	C91	CAP, CeramicTubular, 3.3 pF	50 V K	3511335235	1									
R835	Chip	10 kohm 1/10 W J	3099103870	1		C92	CAP, CeramicTubular, 15 pF	50 V J	3519150935	1									
R836	Chip	8.2 kohm 1/10 W J	3099822870	1	KS,A	L81	Coil, Inductor, 0.47 uH	2648647882	1										
(R836)	Chip	5.6 kohm 1/10 W J	3099562870	1	D,PT INDO	L82	Coil, Inductor, 2.2 uH	2648622982	1										
R837	Chip	1 kohm 1/10 W J	3099102870	1		Q81	TR, KSC2786R	2208406128	1										
R838/R839	Chip	56 kohm 1/10 W J	3099563870	2		Q82/Q83	TR, KTC3193-0, NPN	2208406125	2										
R840-R842	Chip	3.3 kohm 1/10 W J	3099332870	3		Q84	FET, 2SK544	2218217000	1										
R843	Chip	10 kohm 1/10 W J	3099103870	1	KS,A	R81	RES, Carbon Film 100 kohm 1/5 W J	3069104970	1										
(R843)	Chip	3.3 kohm 1/10 W J	3099332870	1	D,PT INDO	R82/R83	RES, Carbon Film 33 kohm 1/5 W J	3069333970	2										
R844	Chip	3.3 kohm 1/10 W J	3099332870	1		R84	RES, Metal Film 220 ohm 1/5 W J	3029221970	1										
R845	Chip	10 kohm 1/10 W J	3099103870	1	KS,A	R85	RES, Carbon Film 330 kohm 1/5 W J	3069334970	1										
(R845)	Chip	3.3 kohm 1/10 W J	3099332870	1	D,PT INDO	R86/R87	RES, Metal Film 390 ohm 1/5 W J	3029391970	2										
R846/R847	Metal Film	3.9 kohm 1/5 W J	3029392970	2		R88	RES, Carbon Film 560 kohm 1/5 W J	3069564970	1										
R848	Chip	15 kohm 1/10 W J	3099153870	1		R89	RES, Carbon Film 33 kohm 1/5 W J	3069333970	1										
R849	Chip	1 kohm 1/10 W J	3099102870	1		R90	RES, Metal Film 390 ohm 1/5 W J	3029391970	1										
R850	Chip	6.8 kohm 1/10 W J	3099682870	1		R91	RES, Carbon Film 680 kohm 1/5 W J	3069684970	1										
R851	Chip	100 kohm 1/10 W J	3099104870	1		VD81-VD83	Vractor, SVC211SPA-C	2258817103	3										
R852	Chip	3.3 kohm 1/10 W J	3099332870	1	KS,A														
(R852)	Chip	1.8 kohm 1/10 W J	3099182870	1	D,PT INDO	PCB2	ASSEMBLY P.C.BOARD MIC (KS, PT INDO AREA ONLY)												
R853	Carbon Film	100 kohm 1/5 W J	3069104970	1	D														
(R853)	Not Used !				A,KS,PT INDO														
R854	Chip	56 kohm 1/10 W J	3099563870	1	D	CAPACITORS													
(R854)	Not Used !				KS,PT INDO,A	C401	Electrolytic SG 4.7 uF 50 V M	3479347971	1										
R855	Chip	100 kohm 1/10 W J	3099104870	1	D	C402	Chip, CH 220 pF 50 V J	3539221210	1										
(R855)	Not Used !				KS,PT INDO,A	C403	Electrolytic SG 10 uF 35 V M	3479310061	1										
R856/R857	Chip	47 kohm 1/10 W J	3099473870	1	D	C404	Electrolytic SG 4.7 uF 50 V M	3479347971	1										
(R856/R857	Not Used !				KS,PT INDO,A	C405	Electrolytic SSE 4.7 uF 16 V M	3479147935	1										
R858	Chip	1 Mohm 1/10 W J	3099105870	1	D	C406	Chip 0.006 uF 50 V K	3539562820	1										
(R858)	Not Used !				KS,PT INDO,A	C407	Electrolytic SG 4.7 uF 50 V M	3479347971	1										
R859	Chip	100 kohm 1/10 W J	3099104870	1		C408	Chip, CH 560 pF 50 V J	3539561210	1										
R860/R861	Chip	47 kohm 1/10 W J	3099473870	2	D	C409	Electrolytic SG 4.7 uF 50 V M	3479347971	1										
R862/R863	Carbon Film	47 kohm 1/5 W J	3069473970	2	D	C410	Chip 0.033 uF 50 V K	3539333820	1										
R860-R863	Chip	47 kohm 1/10 W J	3099473870	4	D	C411	Chip 0.006 uF 50 V K	3539562820	1										
(R860-R863	Not Used !				KS,PT INDO,A	C412	Chip, CH 560 pF 50 V J	3539561210	1										
						C413/C414	Chip 0.047 uF 50 V Z	3539473060	2										
						C415	Chip 0.01 uF 50 V K	3539103820	1										
						C416/C417	Electrolytic SG 0.33 uF 50 V M	3479333871	2										
						C418	Chip 0.01 uF 50 V K	3539103820	1										
						C419	Electrolytic SG 10 uF 35 V M	3479310061	1										
						C420	Chip, CH 220 pF 50 V J	3539221210	1										
						C421	Electrolytic SSE 4.7 uF 16 V M	3479147935	1										
						C422/C423	Electrolytic SG 4.7 uF 16 V M	3479347031	2										
						C424	Chip 0.047 uF 50 V Z	3539473060	1										
						C425	Electrolytic SG 4.7 uF 16 V M	3479347031	1										
						C426	Electrolytic SG 4.7 uF 50 V M	3479347971	1										
						C427	Electrolytic SG 100 uF 10 V M	3479310121	1										
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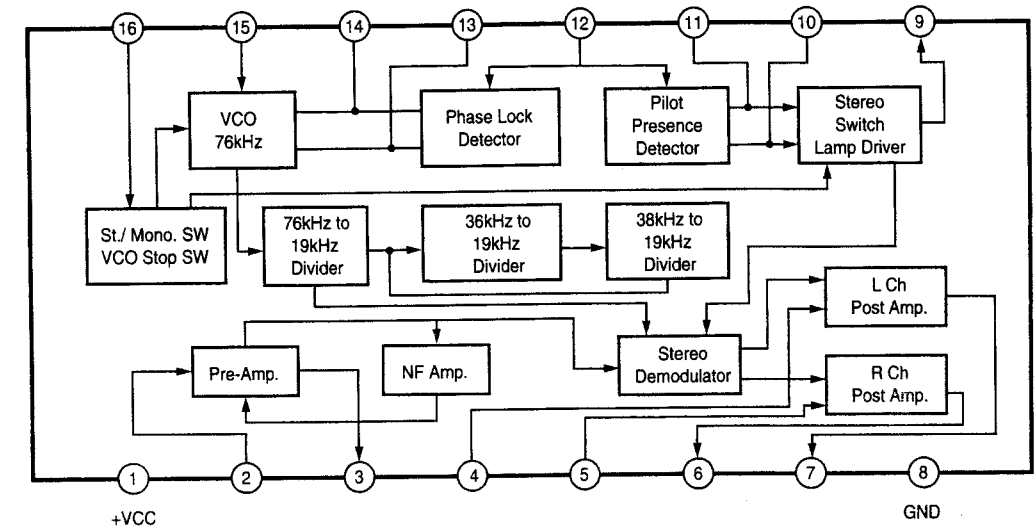
Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version					
PCB1 ASSEMBLY P.C. BOARD MAIN					CONNECTORS					SEMI FIXED RESISTORS					MISCELLANEOUS									
C101	Chip	0.1	uF	50 V Z	3539104060	1	CNT101	Lead Ass'y, 6P, 160mm	36106163761	1	R717/R718	Chip	5.6	kohm	1/10 W J	3099562870	2	T806/T807	MPX, 19 kHz, FB-7SG	2658301100	2			
C102	Chip, CH	100	pF	50 V J	3539101210	1	CNT102	Wafer, 13P	4428525340	1	R719-R721	Chip	1	kohm	1/10 W J	3099102870	3	T808	LW ANT	2608201130	1			
C103	Chip	0.047	uF	50 V Z	3539473060	1	CNT103	Wafer, 13P	4428513820	1	R722/R723	Metal Film	3.3	ohm	1/5 W J	3029339970	2	(T808)	Not Used !		D			
C104	Electrolytic SG	1	uF	50 V M	3479310971	1	CNT104	Wafer, 15P	4428515820	1	R801	Chip	100	ohm	1/10 W J	3099101870	1	T809	LW OSC	2638401060	1			
C105	Chip	0.047	uF	50 V Z	3539473060	1	CNT405	Wafer, 9P	4428525300	1	R802	Chip	1	kohm	1/10 W J	3099102870	1	(T809)	Not Used !		D			
C107	Chip, CH	220	pF	50 V J	3539221210	1	(CNT401)	Not Used !		R803	Chip	560	ohm	1/10 W J	3099561870	1				KS,PT INDO,A				
(C107)	Not Used !						CNT701	Wafer, FPC, 20P	4426001020	1	R804	Chip	3.3	kohm	1/10 W J	3099332870	1							
C108	Electrolytic SG	10	uF	35 V M	3479310061	1				R805	Chip	330	ohm	1/10 W J	3099331870	1	VR801	2 kohm (B)	3248020243	1				
C110	Chip, CH	220	pF	50 V J	3539221210	1				R806	Chip	470	ohm	1/10 W J	3099471870	1	VR802	50 kohm	3248050343	1				
(C110)	Not Used !									(R806)	Chip	330	ohm	1/10 W J	3099331870	1	(VR802)	20 kohm	3248020343	1				
C111/C112	Electrolytic SG	47	uF	16 V M	3479347031	2				R807	Chip	10	kohm	1/10 W J	3099103870	1	VR803	5 kohm (B)	3248050243	1				
C113	Electrolytic SG	4.7	uF	50 V M	3479347971	1				R808	Chip	3.3	kohm	1/10 W J	3099332870	1	VR804	200 kohm	3248020443	1				
(C113)	Not Used !									R809	Chip	18	kohm	1/10 W J	3069183970	1								
C114	Electrolytic SG	10	uF	35 V M	3479310061	1				(R809)	Carbon Film	47	kohm	1/5 W J	3069473970	1								
C115-C118	Chip, CH	100	pF	50 V J	3539101210	4				R810	Chip	22	ohm	1/10 W J	3099220870	1	X801	Crystal, 7.2MHz	3978101031	1				
(C115-C118)	Not Used !									R811	Chip	2.4	kohm	1/10 W J	3099243870	1	TC801	Trimmer, 10P	3838001140	1				
C711	Chip, CH	470	pF	50 V J	3539471210	1	D101	1N4148, Switching	2058322101	1	R812	Chip	10	kohm	1/10 W J	3099103870	1	TC803	Trimmer, 10P	3838001140	1			
C712	Electrolytic SG	1	uF	50 V M	3479310971	1	D102	Zener, UZ 5.1 BSB	2258599103	1	R813	Chip	68	kohm	1/10 W J	3099683870	1	(TC803)	Not Used !		D			
C801	Electrolytic SG	100	uF	16 V M	3479310131	1	D708	1N4148, Switching	2058322101	1	R814	Chip	4.7	kohm	1/10 W J	3099472870	1	(17)	Heatsink Regulator TR.	7505206210	1			
C802	Chip	0.047	uF	50 V Z	3539473060	1	D709/D710	Zener, UZ 5.1 BSB	2258599103	2	R815	Chip	33	ohm	1/10 W J	3099330870	1	20	Jack RCA, 2P	4438103010	1			
C803	Chip, CH	33	pF	50 V J	3539330210	1	D801	Zener, UZ 5.1 BSB	2058322101	4	R816	Chip	240	ohm	1/5 W J	3029241970	1	21	Terminal Antenna, 4P	4408107120	1			
C804	Chip	0.01	uF	50 V K	3539103820	1	D802-D805	1N4148, Switching	2058322101	2	R817	Metal Film	330	ohm	1/5 W J	3029331970	1	(21)	Terminal Antenna, 4P	4408108220	1			
C805	Chip, CH	33	pF	50 V J	3539330210	1	D806/D807	1N4148, Switching	2058322101	2	R818	Chip	2	kohm	1/10 W J	3099202870	1	(22)	Shield Plate	6165151910	1			
C806-C809	Chip	0.047	uF	50 V Z	3539473060	4	(D806/D807)	Not Used !		(R818)	Chip	3.9	kohm	1/10 W J	3099392870	1	(22)	Not Used !		D				
C810	Electrolytic SG	47	uF	16 V M	3479347031	1	VD1/VD2	Varactor, SVC321SPA-C	2258817104	2	R819	Chip	2.2	kohm	1/10 W J	3099222870	1	(27)	Shield Fence, Front-end	6163115510	1			
C811-C813	Chip, CH	100	pF	50 V J	3539331210	3	VD3	Varactor, SVC321SPA-C	2258817104	1	R820	Chip	12	kohm	1/10 W J	3099123870	1	(27)	Not Used !		D			
C814	Chip, CH	330	pF	50 V J	3539331210	1	(VD3)	Not Used !		(R820)	Chip	68	ohm	1/10 W J	3099680870	1	FRONT-EN	Front -End, FTH4-460V	3928101850	1				
C815	Electrolytic SG	1	uF	50 V M	3479310971	1				R821	Chip	100	kohm	1/10 W J	3099104870	1	FRONT-EN	ASSEMBLY PCB FRONT END	5400200983	1				
C816	Chip	0.047	uF	50 V Z	3539473060	1	IC101	LC7821	2168017132	1	R822	Chip	47	kohm	1/10 W J	3099104870	1	C81	CAP, CeramicTubular, 8.2	pF	50 V K	3511825235	1	
C817	Electrolytic SG	10	uF	35 V M	3479310061	1	IC102	KIA4559S/KIA75559S	2168206103	1	R823	Chip	1	kohm	1/10 W J	3099102870	1	C83	CAP, CeramicTubular, 100	pF	50 V J	3519101935	1	
C818	Electrolytic SG	3.3	uF	50 V M	3479333971	1	IC103	KIA7806PI, Regulator	2168606110	1	R824	Chip	560	ohm	1/10 W J	3099561870	1	C84	CAP, CeramicTubular, 0.001	uF	50 V Z	3519102935	1	
C819	Electrolytic SG	2.2	uF	50 V M	3479322971	1	(IC103)	Not Used !		R825	Chip	10	kohm	1/10 W J	3099103870	1	C85	CAP, CeramicTubular, 3.9	pF	50 V K	3511395235	1		
C820	Chip	0.022	uF	50 V K	3539223820	1	IC801	LA1266	2168017128	1	R826	Chip	5.6	kohm	1/5 W J	3069562970	1	C86	CAP, CeramicTubular, 5.6	pF	50 V K	3511565235	1	
C821	Chip	0.047	uF	50 V Z	3539473060	1	IC802	LM7001M	2138017136	1	R827	Carbon Film	100	ohm	1/10 W J	3099101870	2	C87	CAP, CeramicTubular, 2.2	pF	50 V K	3511225235	1	
C822	Mylar	0.047	uF	100 V J	3679473120	1	IC803	AN7470	2168410101	1	R828/R829	Chip	47	kohm	1/10 W J	3099473870	1	C88	CAP, CeramicTubular, 18	pF	50 V J	3511186135	1	
C823	Chip, CH	470	pF	50 V J	3539471210	1				R831	Chip	33	kohm	1/10 W J	3099333870	1	C89	CAP, CeramicTubular, 0.001	uF	50 V Z	3519102935	1		
C824	Electrolytic SG	3.3	uF	50 V M	3479333971	1	Q101	DTC114YS	2208622106	1	(R831)	Chip	22	kohm	1/10 W J	3099223870	1	C90	CAP, CeramicTubular, 8.2	pF	50 V K	3511825235	1	
C825	Electrolytic SG	1	uF	50 V M	3479310971	1	Q102	KRA107M/DTA114YS	2208722102	1	R832	Chip	27	kohm	1/10 W J	3099273870	1	C91	CAP, CeramicTubular, 3.3	pF	50 V K	3511335235	1	
C826	Chip	0.047	uF	50 V Z	3539473060	1	Q103	2SA1515	2208610109	1	(R832)	Chip	22	kohm	1/10 W J	3099223870	1	C92	CAP, CeramicTubular, 15	pF	50 V J	3519150935	1	
C827	Electrolytic SG	0.22	uF	50 V M	3479322871	1	Q104	BKTC3199Y, NPN	2208610109	2	R833	Chip	27	kohm	1/10 W J	3099223870	1	L81	Coil, Inductor, 0.47 uH			2648647882	1	
C828/C829	Chip	0.01	uF	50 V K	3539103820	2	Q702/Q703	DTC114TS	2208622108	2	(R833)	Chip	8.2	kohm	1/10 W J	3099822870	1	L82	Coil, Inductor, 2.2 uH			2648622982	1	
C830	Electrolytic SG	4.7	uF	50 V M	3479347971	1	Q801	Chip, KTC3880	2207606002	1	R834	Chip	5.6	kohm	1/10 W J	3099562870	1	Q81	TR, KSC2786R			2208406128	1	
C831	Electrolytic SG	47	uF	16 V M	3479347031	1	Q802/Q803	BKTC3199Y, NPN	2238006103	1	(R834)	Chip	10	kohm	1/10 W J	3099103870	1	Q82/Q83	TR, KTC3193-0, NPN			2208406125	2	
C832	Chip	0.047	uF	50 V Z	3539473060	1	Q804	KRA107M/DTA114YS	2238006103	1	R835	Chip	8.2	kohm	1/10 W J	3099822870	1	Q84	FET, 2SK544			2218217000	1	
C833	Electrolytic SG	47	uF	16 V M	3479347031	1	Q805/Q806	BKTC3199Y, NPN	2208610109	2	R836	Chip	5.6	kohm	1/10 W J	3099562870	1	R81	RES, Carbon Film	100	kohm	1/5 W J	3069104970	1
C834/C835	Chip	0.047	uF	50 V Z	3539473060	2	Q807/Q808	KRA107M/DTA114YS	2238006103	2	(R836)	Chip	1	kohm	1/10 W J	3099102870	1	R82/R83	RES, Carbon Film	33	kohm	1/5 W J	3069333970	2
C837	Electrolytic SG	10	uF	35 V M	3479310061	1	Q809-Q814	BKTC3199Y, NPN	2208610109	6	R837	Chip	56	kohm	1/10 W J	3099563870	2	R84	RES, Metal Film	220	ohm	1/5 W J	3029221970	1
C838	Chip	0.047	uF	50 V Z	3539473060	1	(Q809-Q814)	Not Used !		R838/R839	Chip	3.3	kohm	1/10 W J	3099332870	3	R85	RES, Carbon Film	330	kohm	1/5 W J	3069334970	1	
C839	CeramicTubular	0.001	uF	50 V K	3519102935	1	Q815	KRA107M/DTA114YS	2238006103	1	R840-R842	Chip	10	kohm	1/10 W J	3099103870	1	R86/R87	RES, Metal Film	390	ohm	1/5 W J	3029391970	2
C840	Chip	0.047	uF	50 V Z	3539473060	1	(Q815)	Not Used !		R843	Chip	3.3	kohm	1/10 W J	3099332870	1	R88	RES, Carbon Film	560	kohm	1/5 W J	3069564970	1	
C841	Chip, CH	470	pF	50 V J	3539471210	1				(R843)	Chip	3.3	kohm	1/10 W J	3099332870	1	R89	RES, Carbon Film	33	kohm	1/5 W J	3069333970	1	
C842	Electrolytic SG	4.7	uF	50 V M	3479347971	1	R101/R102	Chip	1	R844	Chip	10	kohm	1/10 W J	3099103870	1	R90	RES, Metal Film	390	ohm	1/5 W J	3029391970	1	
C843	Electrolytic SG	100	uF	16 V M	3479310131	1	R111-R113	Metal Film	1	R845	Chip	3.3	kohm	1/10 W J	3099332870	1	R91	RES, Carbon Film	680	kohm	1/5 W J	3069684970	1	
C844	Electrolytic SG	100	uF	10 V M	3479310121	1	R114	Carbon Film	100	(R845)	Chip	3.9	kohm	1/5 W J	3029392970	2	VD81-VD83	Varactor, SVC211SPA-C			2258817103	3		
C845	Chip	120	pF	50 V J	3539121210	1	R115	Chip	51	R846/R847	Metal Film	1.8	kohm	1/10 W J	3099182870	1								
C846	Chip	0.002	uF	50 V K	3539152820	1	R116	Metal Film	4.7	R848	Chip	15	kohm	1/10 W J	3099153870	1								
(C846)	Chip	0.001	uF	50 V K	3539102820	1	(R116)	Not Used !		R849	Chip	1	kohm	1/10 W J	3099102870	1								
C847	Chip	0.002	uF	50 V K	3539152820	1	R117	Chip	4.7	R850	Chip	6.8	kohm	1/10 W J	3099682870	1								
(C847)	Chip	0.001	uF	50 V K	35391028																			

Model No. : TX-747

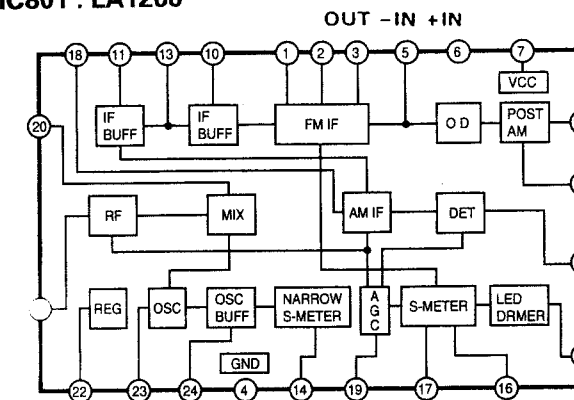
Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
CONNECTOR					TRANSISTOR				
CNT401	Lead Ass'y, 5P, 180mm	36405180732	1		Q701	BKTC3199Y, NPN	2208610109	1	
INTEGRATED CIRCUITS					RESISTORS				
IC401	KIA4559S/KIA75559S	2168206103	1		R701	Chip	100 kohm 1/10 W J	3099104870	1
IC402	ES56028E, Digital Echo	2138633001	1		R702-R706	Carbon Film	100 kohm 1/5 W J	3069104970	5
RESISTORS					R707	Carbon Film	10 kohm 1/5 W J	3069103970	1
R401	Chip	0 ohm 1/10 W J	3099000870	1	R708	Chip	10 kohm 1/10 W J	3099103870	1
R402	Chip	4.7 kohm 1/10 W J	3099472870	1	R709-R711	Carbon Film	100 kohm 1/5 W J	3069104970	3
R403	Chip	1 kohm 1/10 W J	3099102870	1	MISCELLANEOUS				
R404	Chip	100 kohm 1/10 W J	3099104870	1	X701	Crystal, 10MHz	3978011001	1	
R405	Chip	10 kohm 1/10 W J	3099103870	1	FL701	FL Display, CM1361C	2328002308	1	
R406	Chip	15 kohm 1/10 W J	3099153870	1	28	Switch Tact	4658003710	11	
R407	Chip	8.2 kohm 1/10 W J	3099822870	1	PCB5 ASSEMBLY P.C. BOARD RMC				
R408	Chip	12 kohm 1/10 W J	3099123870	1	C701	CAP, Electrolytic SG	10 uF 35 V	3479310081	1
R409	Chip	3.3 kohm 1/10 W J	3099332870	1	CNT703	Connector, Wire Trap, 5P		4428531104	1
R410	Chip	12 kohm 1/10 W J	3099123870	1	IC702	TFMT4380, Remote Sensor		2408005001	1
R411	Chip	15 kohm 1/10 W J	3099153870	1	29	Switch Tact		4658004010	1
R412	Chip	10 kohm 1/10 W J	3099103870	1	PCB3 ASSEMBLY P.C. BOARD POWER				
R413	Chip	15 kohm 1/10 W J	3099153870	1	C501-C503	Mylar	0.047 uF 100 V J	3679473120	3
R414	Chip	6.8 kohm 1/10 W J	3099682870	1	C504	Electrolytic SD	4700 uF 25 V M	3409347248	1
R415	Chip	68 kohm 1/10 W J	3099683870	1	C505	Electrolytic SG	1 uF 50 V M	3479310971	1
R416	Chip	6.8 kohm 1/10 W J	3099682870	1	C506	Ceramic Tubular	0.022 uF 25 V Z	3579223530	1
R417	Chip	68 kohm 1/10 W J	3099683870	1	(C506)	Not Used !			KS,PT INDO D.A
R418	Chip	27 kohm 1/10 W J	3099273870	1	C507	Electrolytic SG	1 uF 50 V M	3479310971	1
R419	Chip	560 ohm 1/10 W J	3099561870	1	(C507)	Not Used !			KS,PT INDO D.A
R420	Chip	15 kohm 1/10 W J	3099153870	1	D501/D502	1N4003, Rectifier		2058512108	2
R421/R422	Chip	330 ohm 1/10 W J	3099331870	2	D503	1N4148, Switching		2058322101	1
R423	Chip	1 kohm 1/10 W J	3099102870	1	(D503)	Not Used !			KS,PT INDO D.A
R424	Chip	100 kohm 1/10 W J	3099104870	1	IC501	KIA7808PI, Regulator		2168606116	1
R425	Chip	47 kohm 1/10 W J	3099473870	1	IC502	KIA7805PI, Regulator		2108499104	1
R426	Metal Film	10 ohm 1/5 W J	3029100970	1	(IC502)	Not Used !			KS,PT INDO D.A
R427	Carbon Film	15 kohm 1/5 W J	3069153970	1	R501	Metal Film	3.3 ohm 2 W J	3029339570	1
MISCELLANEOUS					(R501)	Not Used !			KS,PT INDO D.A
8	Jack Phone		4438005510	1	CP501	Wafer, 6P		4428505810	1
9	Shield Fence		6165146110	1	PCB4 ASSEMBLY P.C. BOARD FRONT				
10	Volume Mic, 10 kohm		3208052410	1	CAPACITORS				
PCB3 ASSEMBLY P.C. BOARD POWER					C702/C703	Chip	0.047 uF 50 V Z	3539473060	2
C501-C503	Mylar	0.047 uF 100 V J	3679473120	3	C704	Electrolytic SSE	47 uF 10 V M	3479147025	1
C504	Electrolytic SD	4700 uF 25 V M	3409347248	1	C705	Electric Back-up	0.047 F 5.5 V	3438247315	1
C505	Electrolytic SG	1 uF 50 V M	3479310971	1	C706	Chip	0.1 uF 50 V Z	3539104060	1
C506	Ceramic Tubular	0.022 uF 25 V Z	3579223530	1	C707	Chip, CH	22 pF 50 V J	3539220210	1
(C506)	Not Used !				C708	Trimmer, CH	10 pF	3838001140	1
C507	Electrolytic SG	1 uF 50 V M	3479310971	1	C709	Chip, CH	33 pF 50 V J	3539330210	1
(C507)	Not Used !				C710	Electrolytic SSE	10 uF 16 V M	3479110035	1
D501/D502	1N4003, Rectifier		2058512108	2	C713/C714	Chip	0.1 uF 50 V Z	3539104060	2
D503	1N4148, Switching		2058322101	1	CONNECTORS				
(D503)	Not Used !				CNT701	Wafer, FPC, 20P		4426001120	1
IC501	KIA7808PI, Regulator		2168606116	1	CNT703	Lead Ass'y, 4P, 80mm		36404080732	1
IC502	KIA7805PI, Regulator		2108499104	1	DIODES				
(IC502)	Not Used !				D701-D707	1N4148, Switching		2058322101	7
R501	Metal Film	3.3 ohm 2 W J	3029339570	1	INTEGRATED CIRCUIT				
(R501)	Not Used !				IC701	CXP82324-331Q, CPU, DWP449		2139322704	1
CP501	Wafer, 6P		4428505810	1	COIL				
PCB4 ASSEMBLY P.C. BOARD FRONT					L702	Inductor, 1 mH 03		2648610283	1

IC FUNCTIONAL BLOCK DIAGRAM

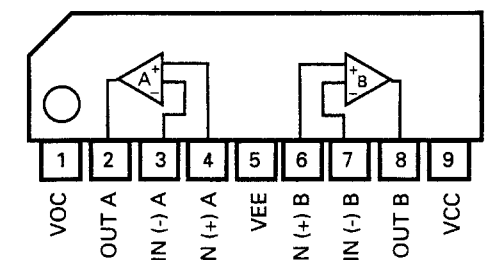
IC803 : AN7470



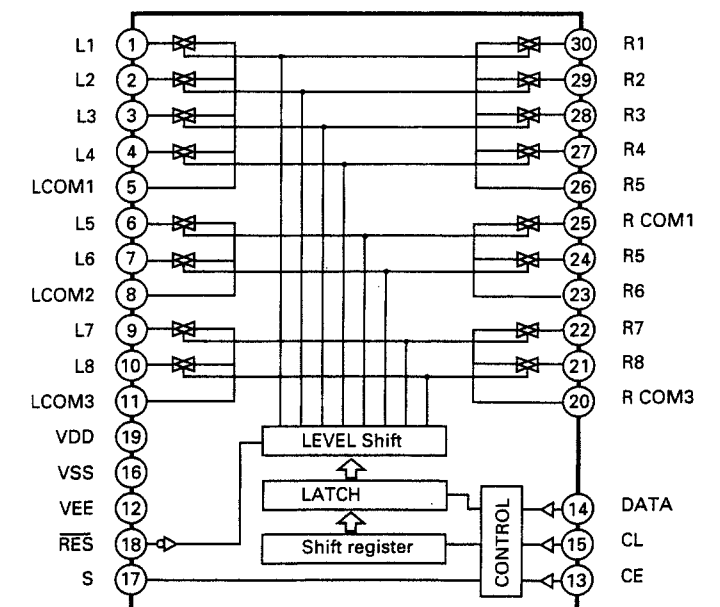
IC801 : LA1266



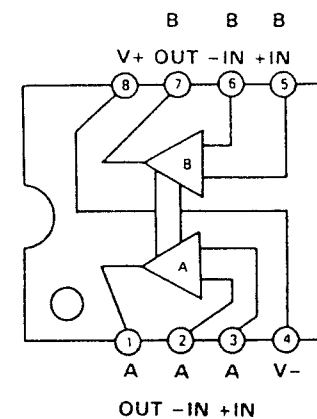
IC102, IC306, IC401 : KIA4559S/KIA75559S



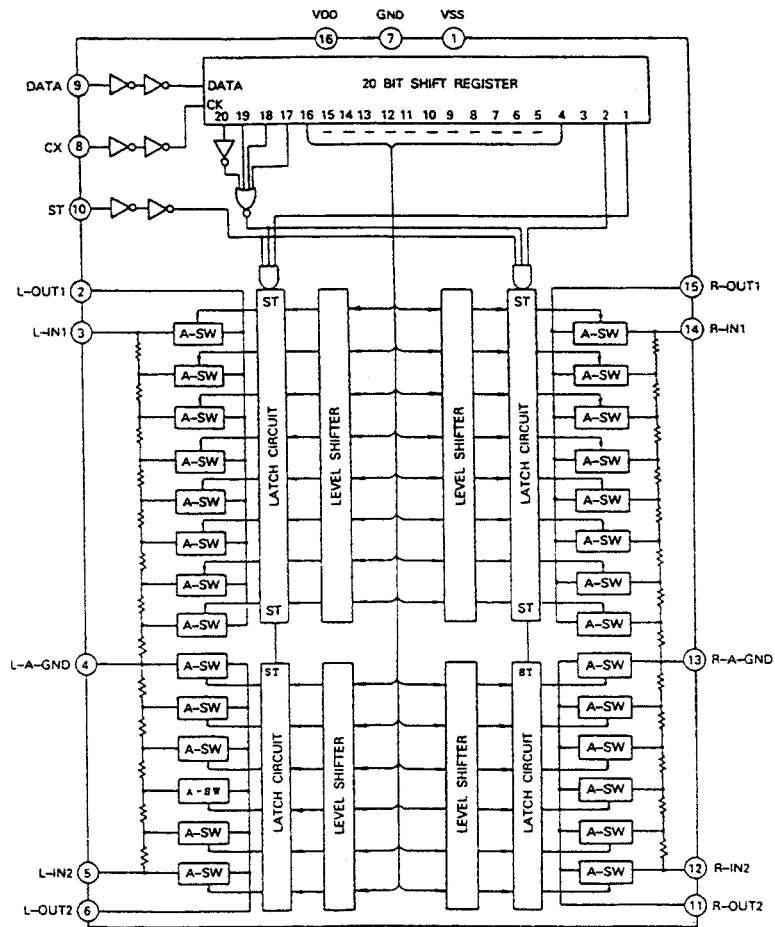
IC101 : LC7821



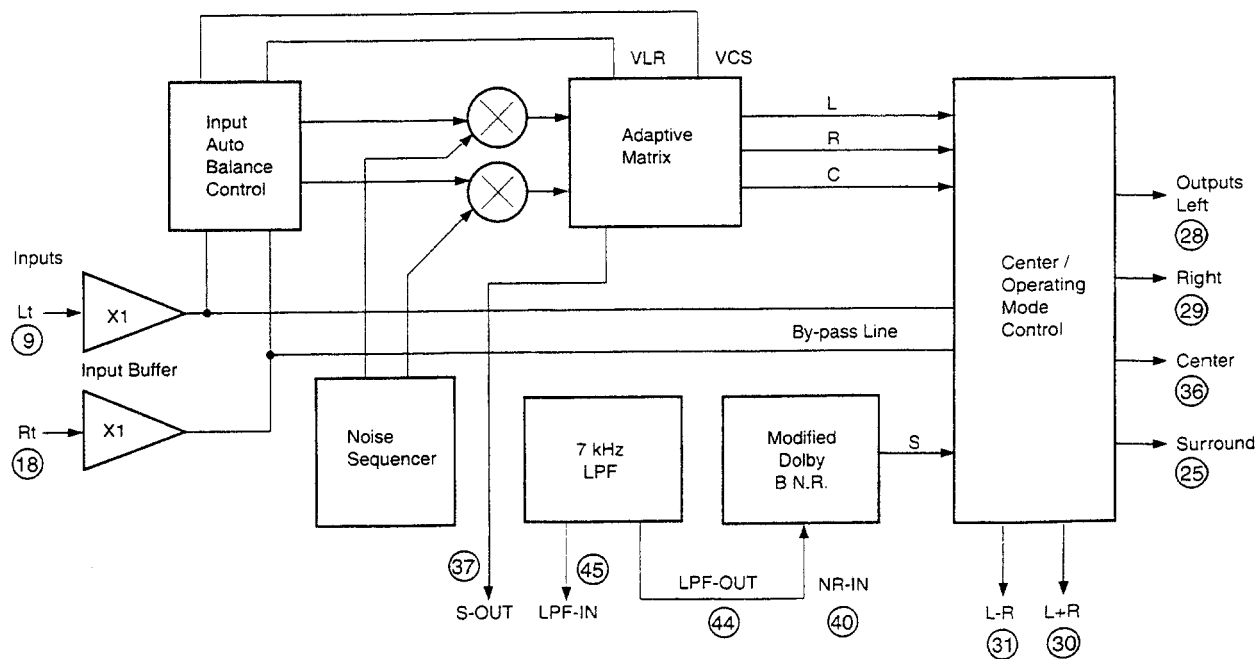
IC304 : KIA4559S/KIA75559P



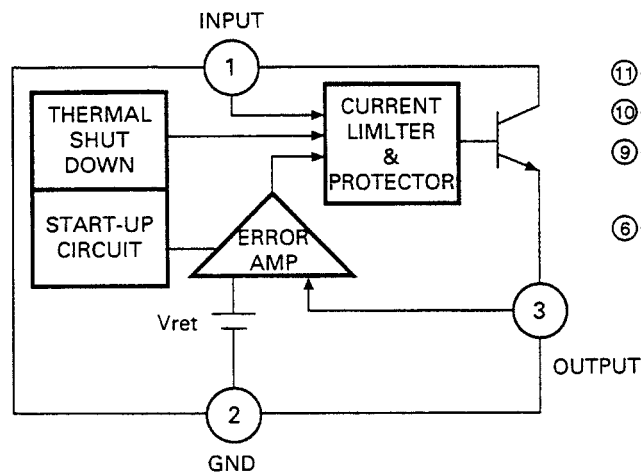
IC305 : TC9176P



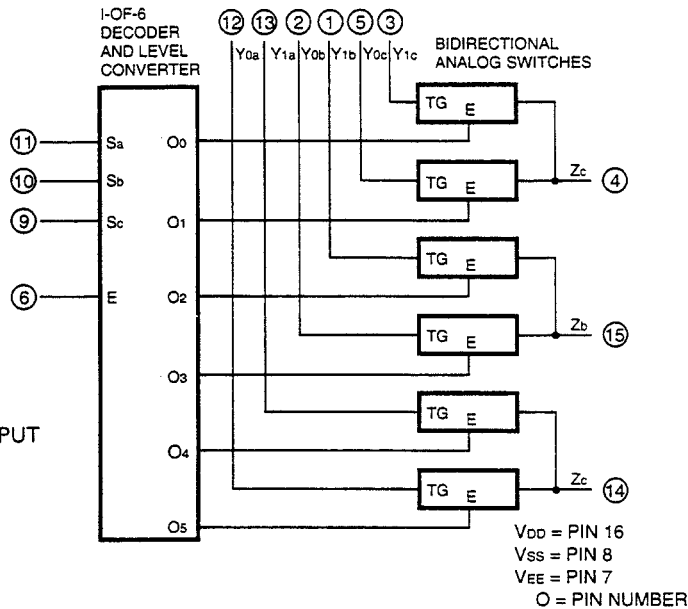
IC301 : NJM2177FB3



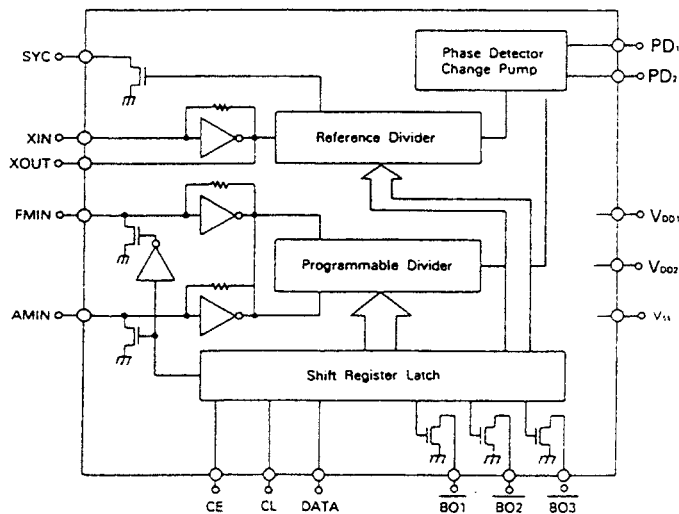
IC502 : KIA7805PI
IC103 : KIA7806PI
IC501 : KIA7808PI



IC303 : GD4053B

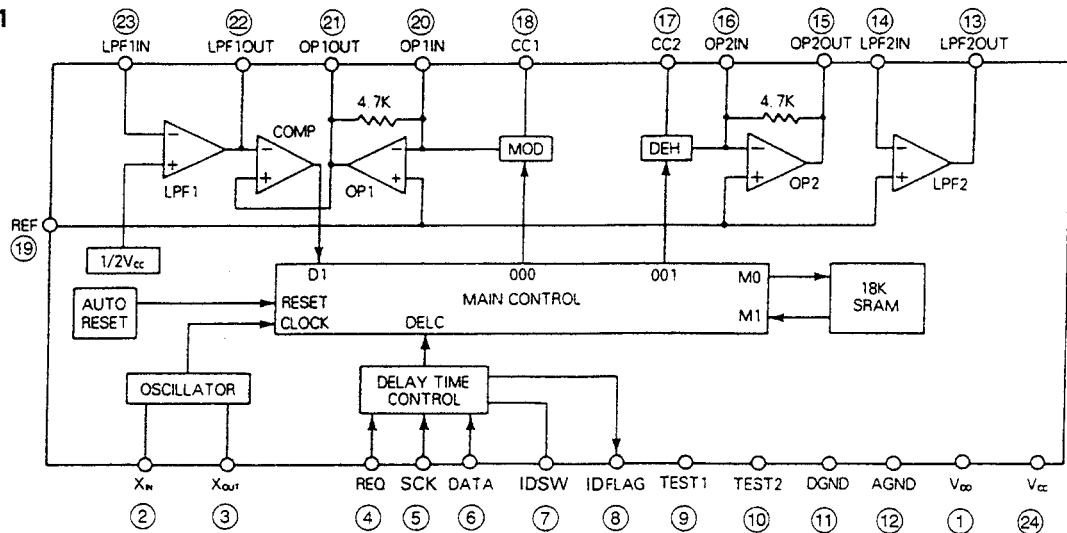


IC802 : LM7001M

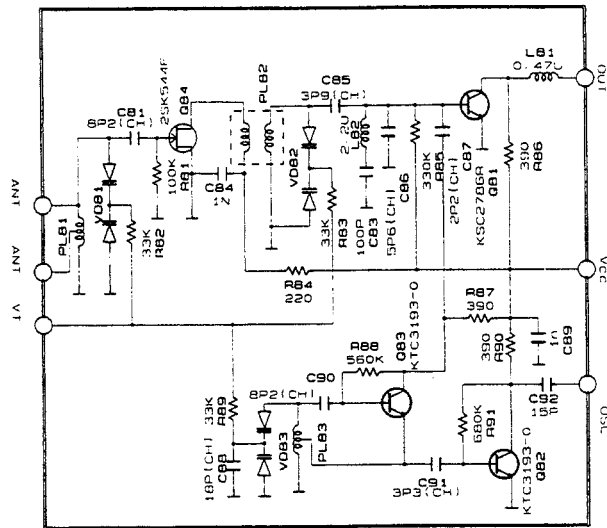


No	LM 7001	LM7001M
1	XOUT	XOUT
2	XIN	XIN
3	CE	NC
4	CL	CE
5	DATA	CL
6	SYC	DATA
7	BO1	SYC
8	BO2	BO1
9	BO3	BO2
10	AMIN	BO3
11	FMIN	NC
12	VDD1	AMIN
13	VDD2	NC
14	PD1	FMIN
15	PD2	NC
16	VSS	VDD1
17		VDD2
18		PD1
19		PD2
20		VSS

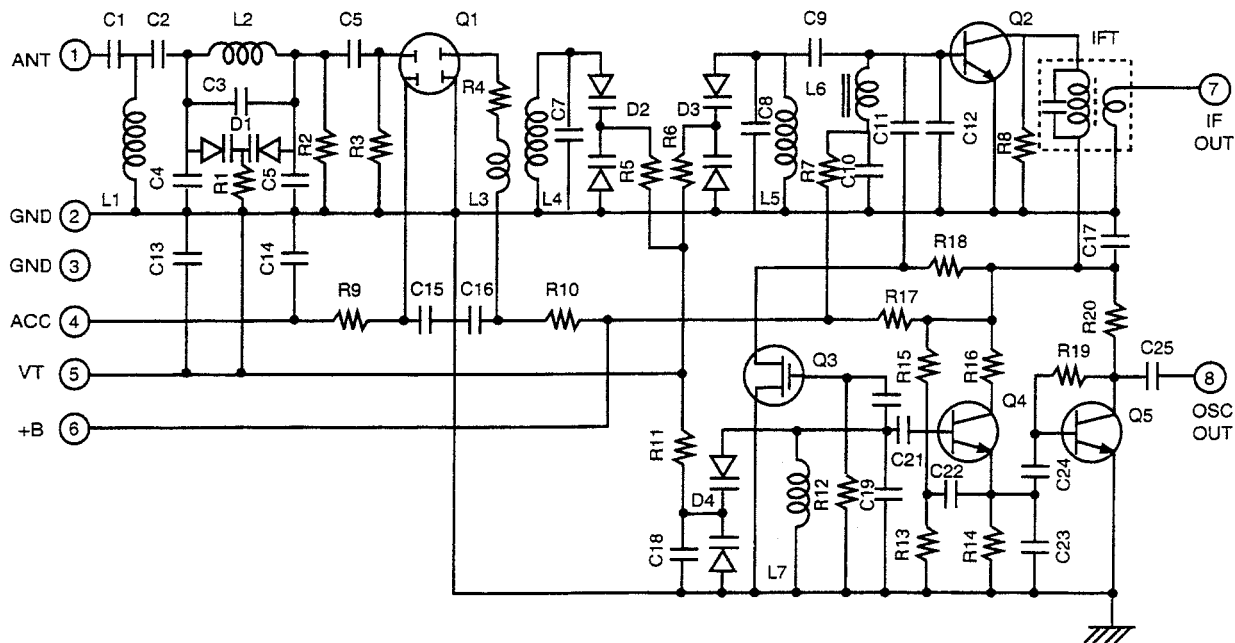
IC302 : NJU9701



FM FRONT - END (A, PT INDO, KS VERSION)



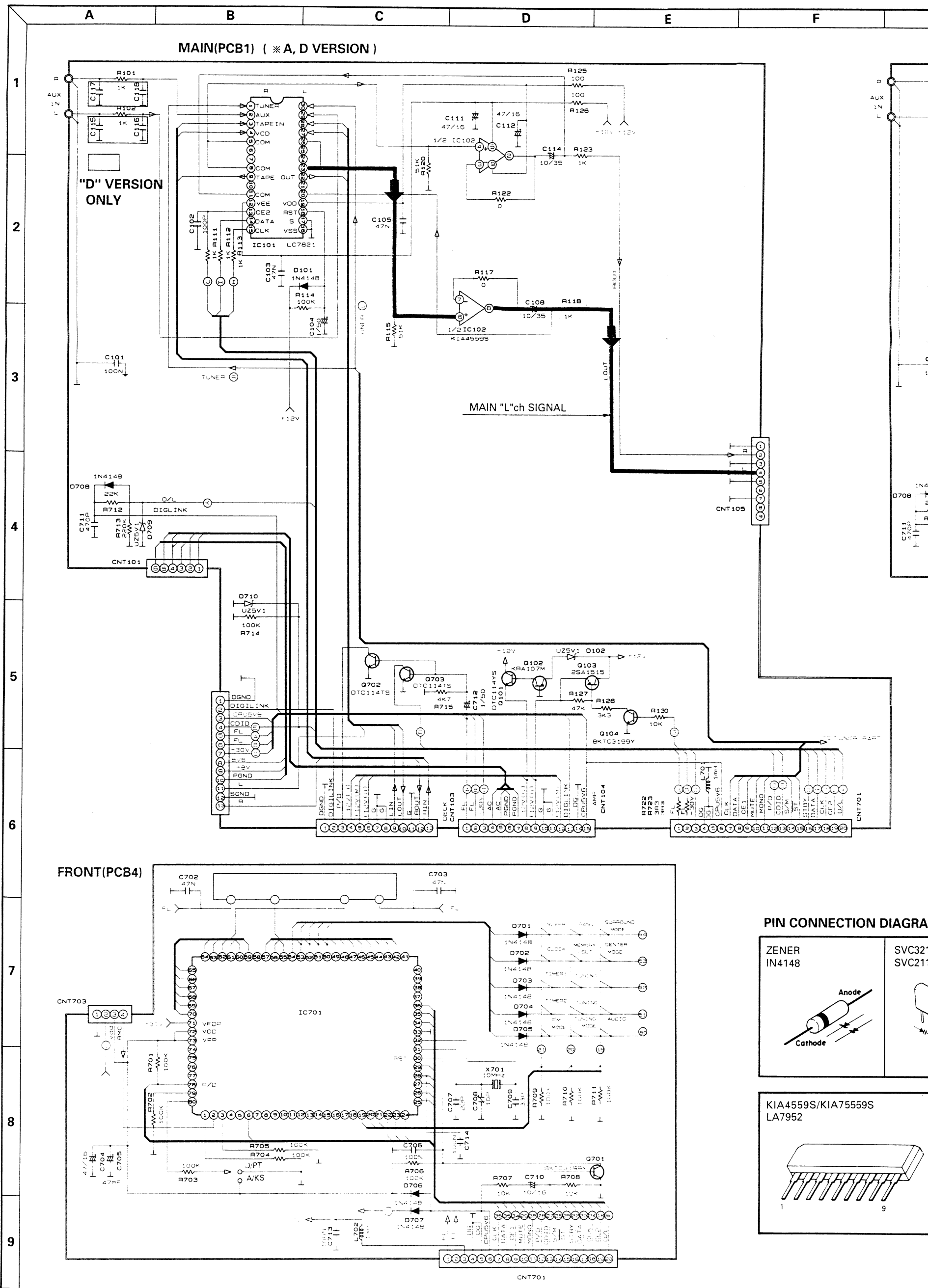
FM FRONT - END
FTA4 - 460V (D Version)



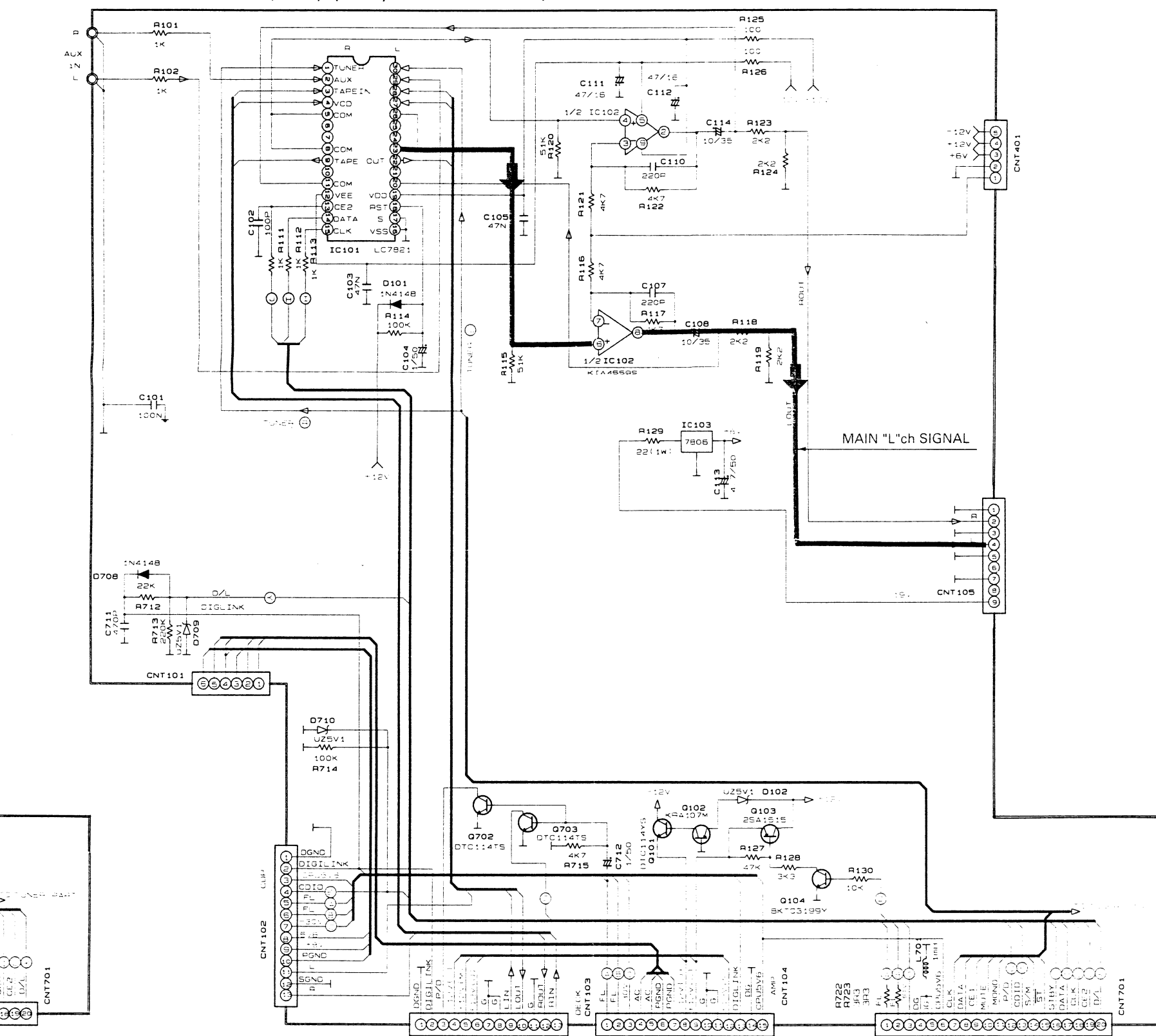
Ref. No.	Content	Ref. No.	Content	Ref. No.	Content	Ref. No.	Content	Ref. No.	Content	Ref. No.	Content	Ref. No.	Content
IFT	10.7 MHz	C1	22 pF	C11	1 pF	C21	8 pF	R1	33 K Ω	R11	33 K Ω	Q1	3SK 180
		C2	15 pF	C12	22 pF	C22	27 pF	R2	100 K Ω	R12	10 K Ω	Q2	2SC3142
L6	2.2 or 1 MHz	C3	0-5 pF	C13	22 pF	C23	20 pF	R3	100 K Ω	R13	10 K Ω	Q3	2SK 543
		C4	18 pF	C14	22 nF	C24	2 pF	R4	22-330 Ω	R14	1-1.8 K Ω	Q4	2SC2814
L1-L5, L7	AIR WIL	C5	7 pF	C15	0-22 nF	C25	15 pF	R5	33 K Ω	R15	10 K Ω	Q5	2SC2814
		C6	7 pF	C16	22 nF			R6	33 K Ω	R16	330 Ω	D1	KV1440
		C7	4-10 pF	C17	22 nF			R7	1-3.3 K Ω	R17	100 Ω	D2	KV1440
		C8	0-7 pF	C18	33-68 pF			R8	-	R18	470 Ω	D3	KV1440
		C9	5 pF	C19	0-5 pF			R9	10 K Ω	R19	330 K Ω	D4	KV1440
		C10	100 or 220 pF	C20	2 pF			R10	100-1 K Ω	R20	330 Ω		

NOTE

SCHEMATIC DIAGRAM I

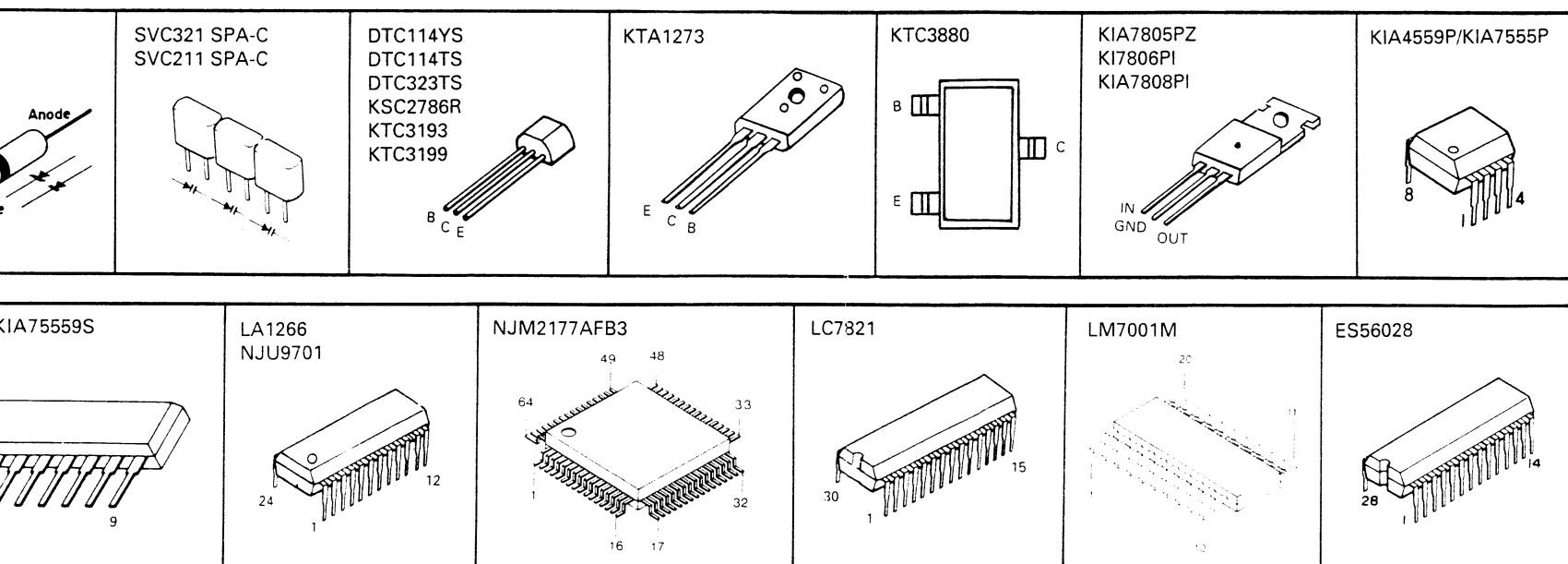


MAIN(PCB1) (※KS, PT INDO VERSION)

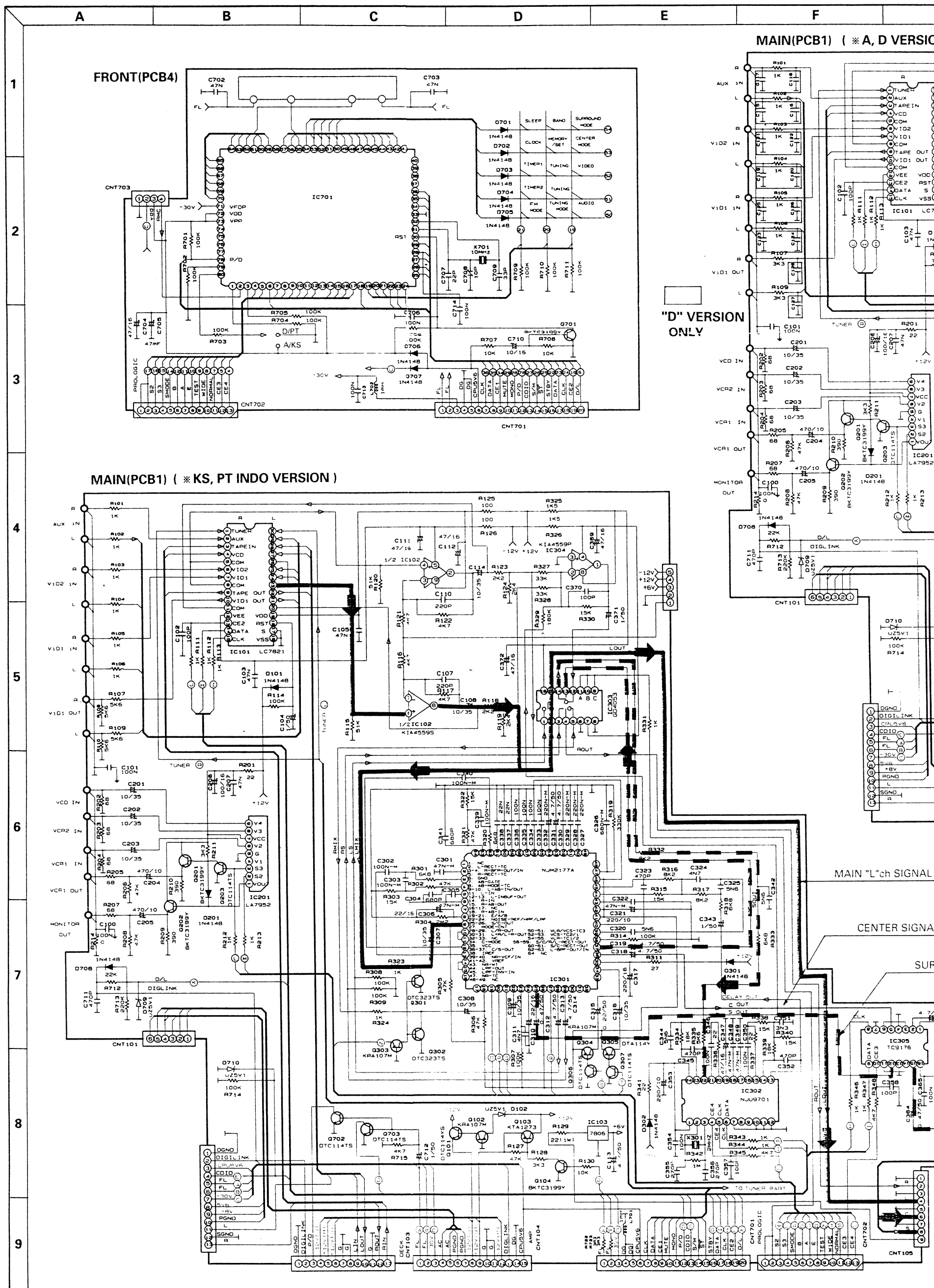


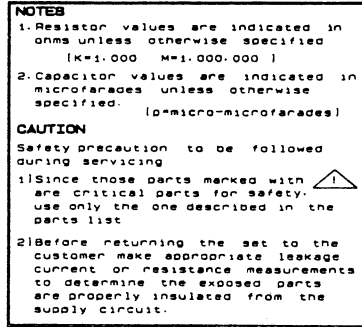
MAIN "L"ch. SIGNAL

SECTION DIAGRAM DIODES, TRANSISTORS AND ICS

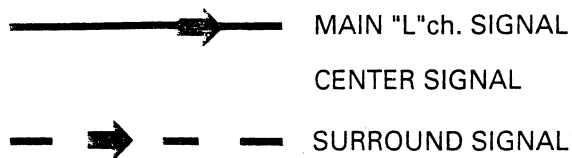


SCHEMATIC DIAGRAM II





SURROUND SIGNAL




NOTES

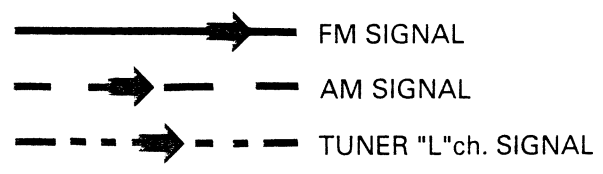
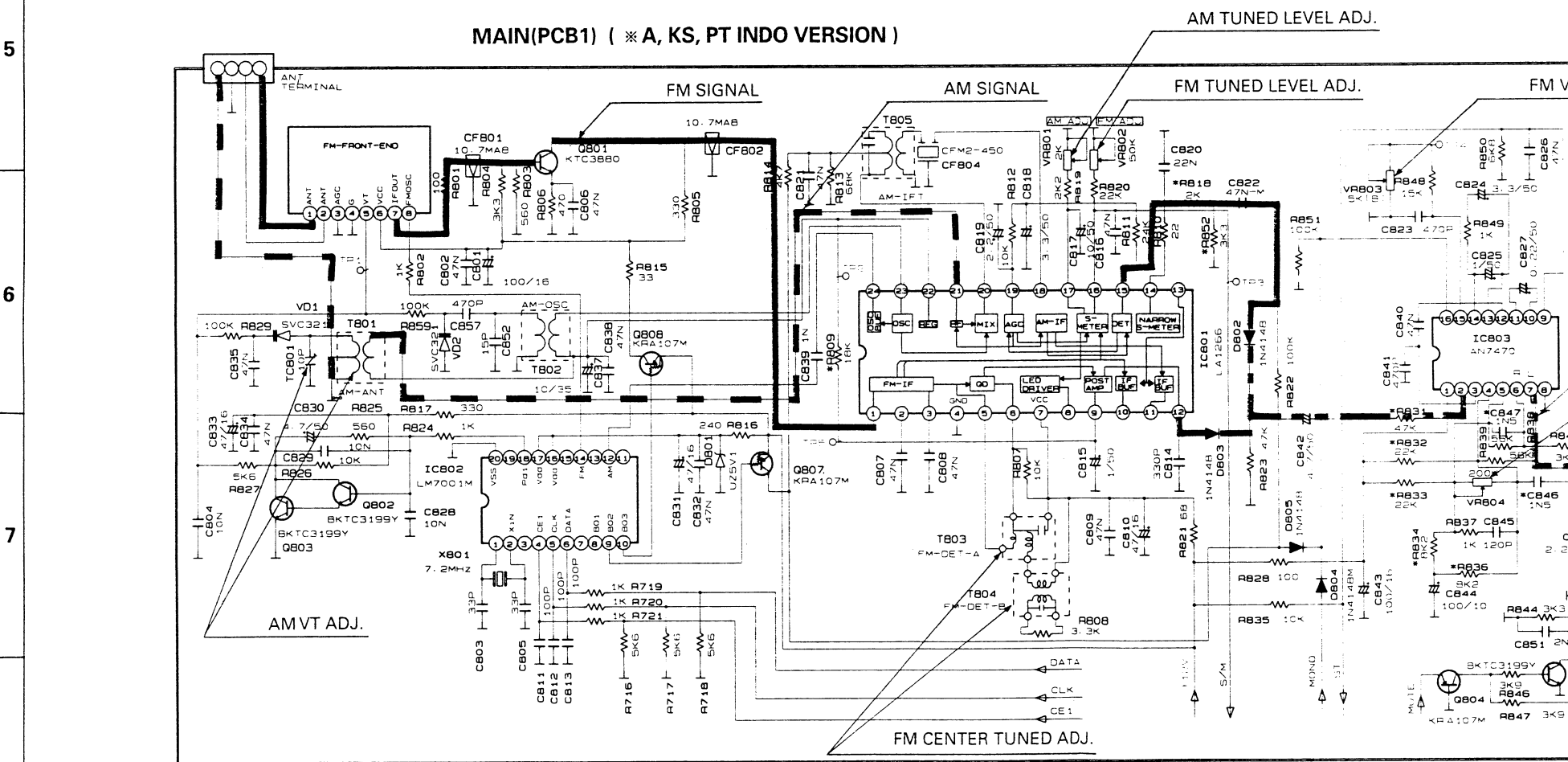
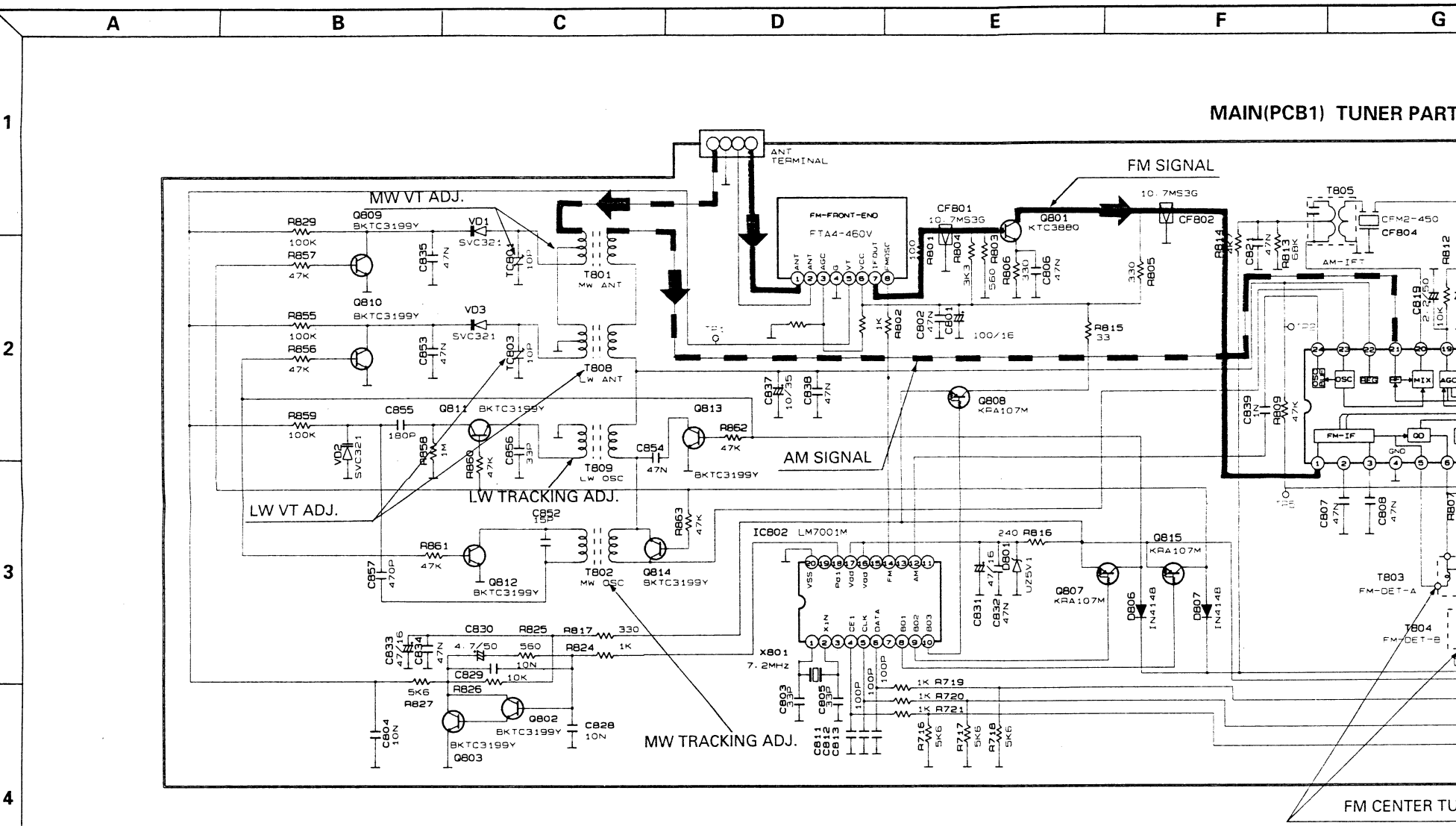
1. Resistor values are indicated in ohms unless otherwise specified
(K=1.000 M=1.000.000)
2. Capacitor values are indicated in microfarads unless otherwise specified.
(p=micro-microfarads)

CAUTION

Safety precaution to be followed during servicing

- 1) Since those parts marked with  are critical parts for safety, use only the one described in the parts list
- 2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

SCHEMATIC DIAGRAM III

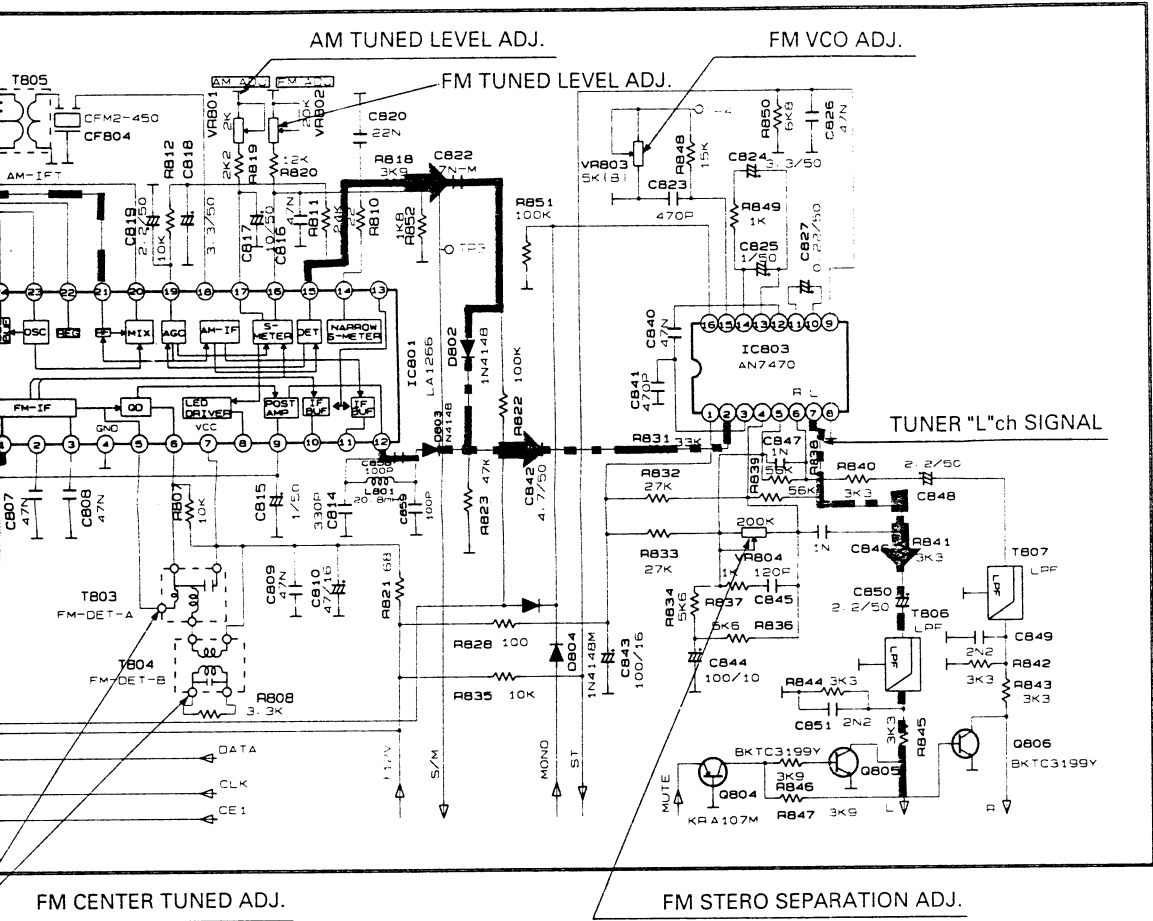


*REMARK

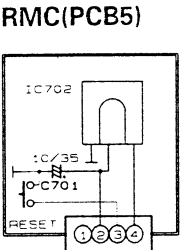
	R813	R852	R809	R84
KS, A	2K	3K3	18K	10K
PT	3K9	1K8	47K	3K3

G	H	I	J	K	L
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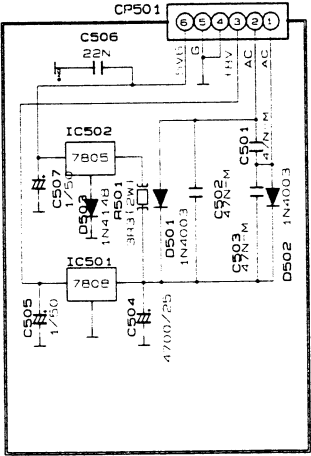
TUNER PART D VERSION



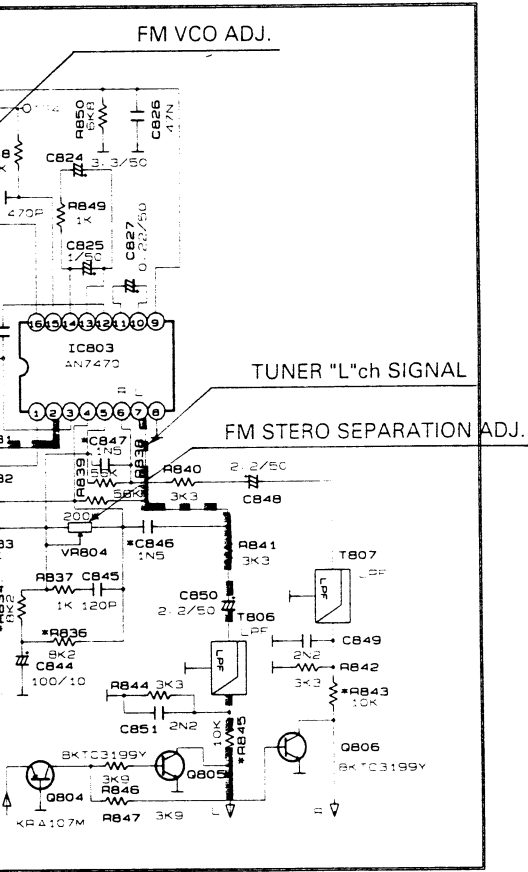
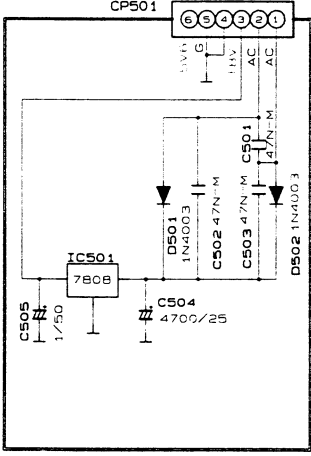
NOTES
1. Resistor values are indicated in ohms unless otherwise specified
[K=1,000 M=1,000,000]
2. Capacitor values are indicated in microfarads unless otherwise specified
[p=micro-microfarads]
CAUTION
Safety precaution to be followed during servicing
1. Since those parts marked with are critical parts for safety, use only the one described in the parts list
2. Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.



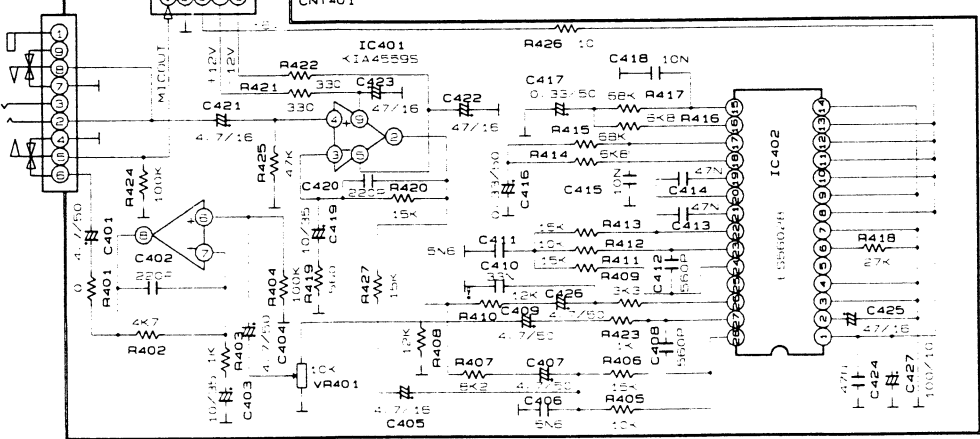
POWER(PCB3) (* KS, PT INDO VERSION)



POWER(PCB3) (* A/D VERSION)

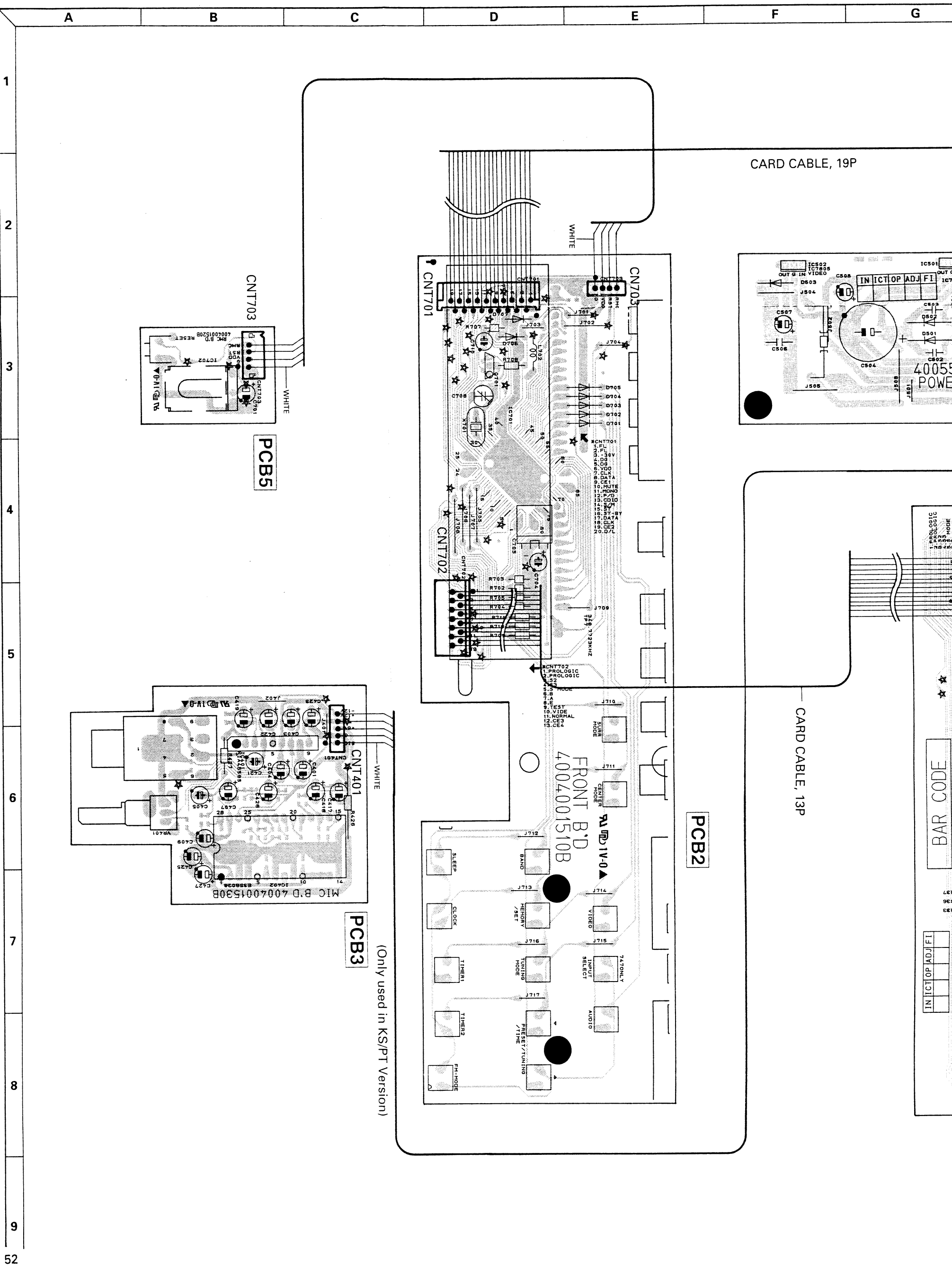


MIC(PCB2) (* KS, PT INDO VERSION ONLY)



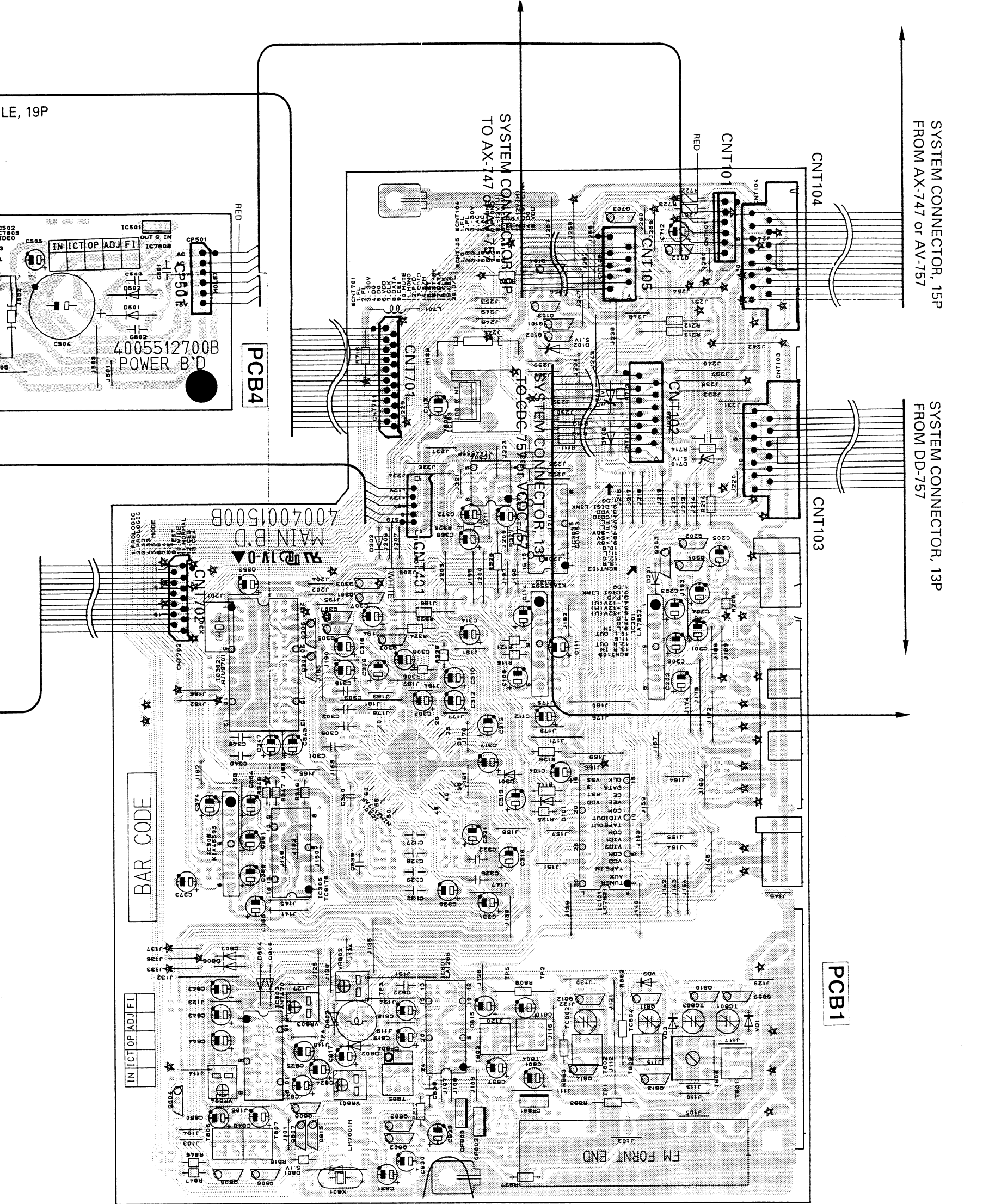
R852	R809	R843	R830	R834	R831	C846
3K3	18K	10K	22K	5K3	47K	126
1K8	47K	3K3	27K	0.6	0.3	1N

WIRING DIAGRAM



	G	H	I	J	K	L
--	---	---	---	---	---	---

LE, 19P



▪ VCDC-757/CDC-757 ▪

SPECIFICATIONS

GENERAL

Transmission bit ratio	4.3218 Mbit/sec
Transmission on clock	16.9344 MHz
Error correction	CIRC C1: Double correction C2: Quadruple correction

PICK-UP

System object lens type	Optical pick-up
Object lens drive system	2 Dimensional parallel drive type
Optical source	Semiconductor laser
Wave length	780 nm
Tracking system	3 Beam tracking servo type

OTHER

D/A Converter	1 bit twin with digital filter
---------------	--------------------------------

ELECTRICAL

- Measuring methods in conformity with EIAJ CP-307, CCIR 468-3
- Reference level: 0 dB
- Test disc: SONY CD-3 YEDS-7, A,BEX TCD725
- Filter: 30 kHz, 18 dB/oct low pass filter

Description	Track	Nominal	Limit
Frequency Response at 20 Hz - 20 kHz	2 - 13	± 1.0 dB	± 2.0 dB
Signal to Noise Ratio at 1 kHz (Weighted A)	23	75 dB	70 dB
Dynamic Range at 1 kHz, 60 dB (Weighted A)	20	75 dB	70 dB
Total Harmonic Distortion at 0 dB			
100 Hz	4	0.06%	0.1%
1 kHz	7	0.06%	0.1%
20 kHz	13	0.08%	0.1%
Channel Separation at 1 kHz (Selective)	30, 34	55 dB	50 dB
Channel Unbalance at 1 kHz	7	± 1.0 dB	± 2.0 dB
Access Time (Track to next track)		7 sec	9 sec
Disc Defects			
Black dot	10 - 15	700 μM	700 μM
Interrupt	3 - 9	800 μM	800 μM
Fingerprint	17 - 19	ALL	ALL
De-emphasis			
	39	± 0.2 dB	± 0.3 dB
	40	± 0.3 dB	± 0.5 dB
	41	± 0.5 dB	± 1.0 dB

ENVIRONMENTAL

Test to specification

Temperature between 59°F (15°C) and 95°F (35°C) and relative humidity between 45% and 75%, with power supply voltage of 10% the normal supply voltage.

Test disc: SONY YEDS-7 or ABEX TCD784, TCD725.

Operation

Unit must work properly and correctly at the temperature range from 32°F (0°C) to 113°F (45°C) and the relative humidity from 40% to 80%, and with the supply voltage.

Storage

Temperature test: 48 hours each at -40°F (-40°C) and 149°F (65°C).

Humidity test: 40°C 95% relative humidity.

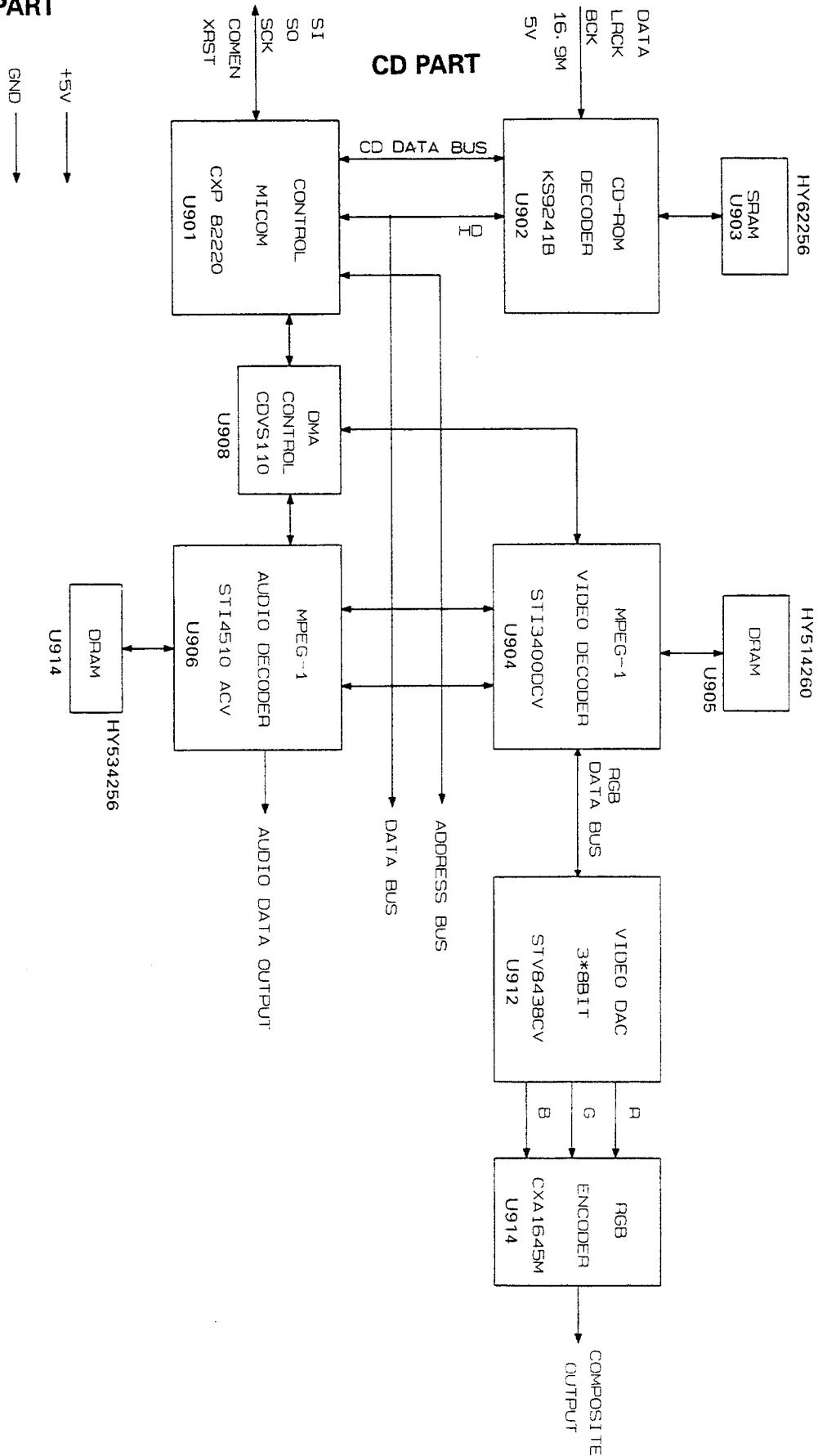
Model No : CDC-757/VCDC-757



BLOCK DIAGRAM II

Model No. : VCDC-757

MPEG PART



LASER BEAM SATETY PTECATIONS

CLASS 1 LASER PRODUCT

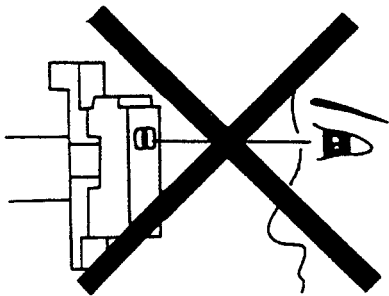
**CLASS 1
LASER PRODUCT**

CAUTION

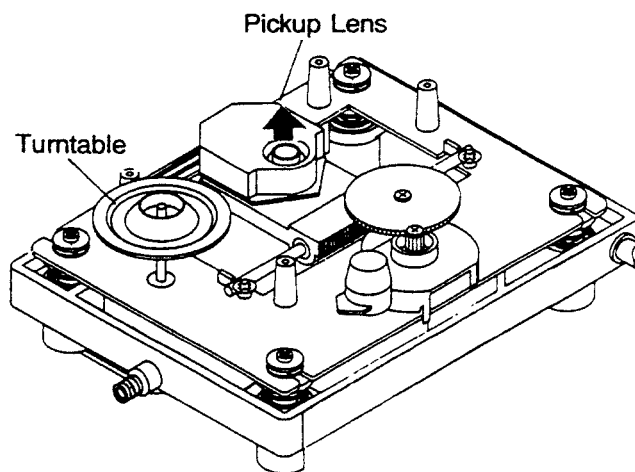
Invisible laser radiation when the unit is open. DO not stare into beam.

CAUTION: USE OF ANY CONTROLS, ADJUSTMENT, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.



This compact disc player uses a pickup that emits a laser beam. The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 1 foot away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.



CAUTION:

Using controls and adjustment, or doing procedures other than those specified herein, may result in hazardous radiation exposure.

SAFETY PRECAUTIONS



WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Caution: To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

Attention: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

HANDLING LASER PICKUP

The laser diode in the optical system of this player can be damaged by electrostatic discharge from your clothes or your body. Proper electrostatic grounding for service personnel is required during servicing.

BEFORE REPAIRING THE COMPACT DISC PLAYER

Preparation

• Human Body Grounding:

Many of the components used in this compact disc player, including the laser pickup, are sensitive to electrostatic discharge. Service personnel should be grounded with an electrostatic armband (1 Mohm).

• Caution:

Static charge on clothing does not escape through a body grounding wrist band. Be careful not to contact the pickup or electrical components with your clothing.

• Workbench and Tool Grounding:

A properly-grounded electroconductive plate (1 Mohm) or metal sheet should be fitted to the workbench surface. Tools and instruments (such as soldering irons and scopes) should be grounded to prevent AC leakage.

Incorrect



Fig. 1

Correct

Grounded Conductive Wrist for Body

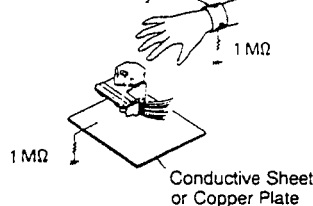


Fig. 2

Note: Laser diodes are so susceptible to damage from static electricity that, even if a static discharge does not ruin a diode, it can shorten its life or cause it to work improperly.

PICKUP REPLACEMENT

Caution:

Laser diodes are extremely susceptible to damage from static electricity. Even if a static discharge does not ruin the diode, it can shorten its life or cause it to work improperly. When replacing the pickup, take appropriate measures, such as using a conductive mat and a grounded soldering iron, to protect the laser diode from static damage.

1. Remove the CD mechanism assembly by referring to the "EXPLODED VIEW II" on page 72 (See Fig. 3).

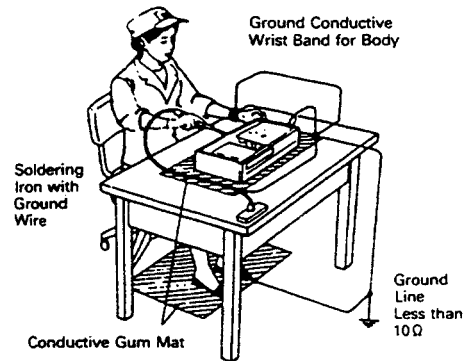


Fig. 3

2. Remove four screws S12 (See Fig. 4).

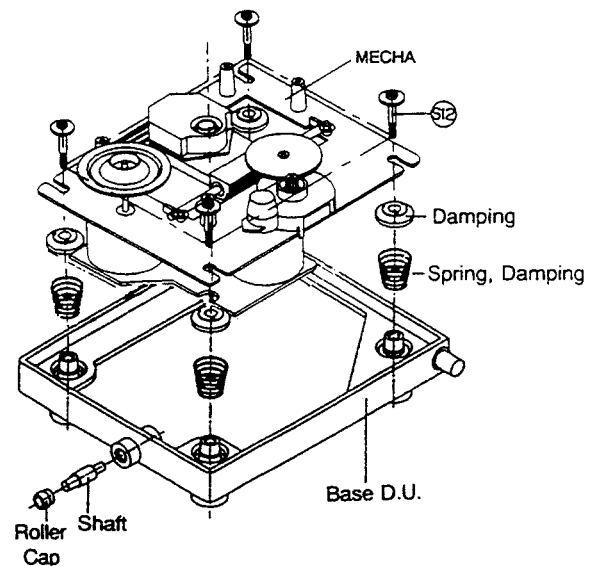


Fig. 4

3. Remove the gear A (See Fig. 5).
4. Pull out the slide shaft.

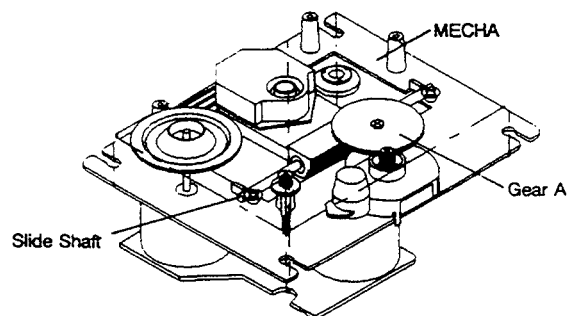


Fig. 5

5. Remove the pickup (See Fig. 6).

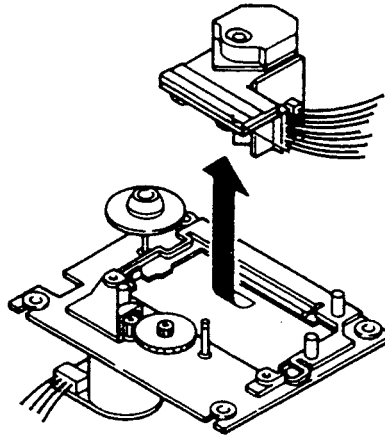


Fig. 6

6. Refer to the EXPLODED VIEW II of the compact disc mechanism on page 72 for detailed illustrations.

OPERATION CHECK

When the power switch is turned on after the chucking arm is removed, observe the objective lens and check the following. (The optical system block should be at the lead-in position when it is checked.)

1. The disc table should be at the innermost position after the chucking arm is removed.
2. The diffused light of the laser beam can be seen when the power switch is turned on.
3. Vertical (up and down) movement of the objective lens takes place (2 or 3 times).

DISASSEMBLY PROCEDURES

REFER TO PAGES 71 AND 82.

1 COVER TOP REMOVAL

Remove 5 screws **a** and then remove the Cover Top **7**.

2 FRONT PANEL ASSEMBLY REMOVAL

1. Remove the Cover Top **7**, referring to the previous step **1**.
2. Remove 8 screws **b**.
3. Disconnect (CP401) from Front1 P.C.Board (PCB4) and then remove the Front Panel Assembly **AA**.

3 FRONT1, 2 P.C.BOARD (PCB4, PCB5) REMOVAL

1. Remove the Cover Top **7**, referring to the previous step **1**.
2. Remove the Front Panel Assembly **AA**, referring to the previous step **2**.
3. Remove 6 screws **c** and then remove the Front1, 2 P.C.Board (PCB4, PCB5).

4 ASSEMBLY MECHANISM REMOVAL

1. Remove the Cover Top **7**, referring to the previous step **1**.
2. Remove the Front Panel Assembly **AA**, referring to the previous step **2**.
3. Remove 4 screws **d**.
4. Disconnect (CP301) from CNT P.C.Board (PCB3) and then remove the Assembly Mechanism **1**.

5 DSP P.C.BOARD (PCB2) REMOVAL

1. Remove the Cover Top **7**, referring to the previous step **1**.
2. Do steps **2** and **4**.
3. Remove the card cable from wafer (CP203 and CP202) on the DSP P.C.Board (PCB2).
4. Disconnect (CP201) from the DSP P.C.Board (PCB2).
5. Remove 3 screws **e** and then remove the DSP P.C.Board (PCB2).

6 MAIN P.C.BOARD (PCB1) REMOVAL

1. Remove the Cover Top **7**, referring to the previous step **1**.
2. Do steps **2** and **4**.
3. Remove 3 screws **f** and then remove the 2 taps (attached to the Main P.C.Board)

from the body mechanism.

4. Remove the card cable from wafer (CP109) on the Main P.C.Board (PCB1).
5. Disconnect (CP102, CP101, CN106 and CP103) from the Main P.C.Board (PCB1).
6. Disconnect (CP901, CP902, CP903 and CP904) from the MPEG P.C.Board (PCB7). (This step is applicable for only VDC757)

7 MPEG P.C.BOARD (PCB7) REMOVAL

(This step is applicable for only VDC757)

1. Remove the Cover Top **7**, referring to the previous step **1**.
2. Do steps **2** and **4**.
3. Disconnect (CP901, CP902, CP903 and CP904) from the MPEG P.C.Board (PCB7).
4. Remove 3 screws **g** and then remove the MPEG P.C.Board (PCB7).

8 VIDEO JACK P.C.BOARD (PCB6) REMOVAL

(This step is applicable for only VDC757)

1. Remove the Cover Top **7**, referring to the previous step **1**.
2. Disconnect (CP601) from the MPEG P.C.Board (PCB7).
3. Remove a screw **h** and then remove the Video Jack P.C.Board (PCB6).

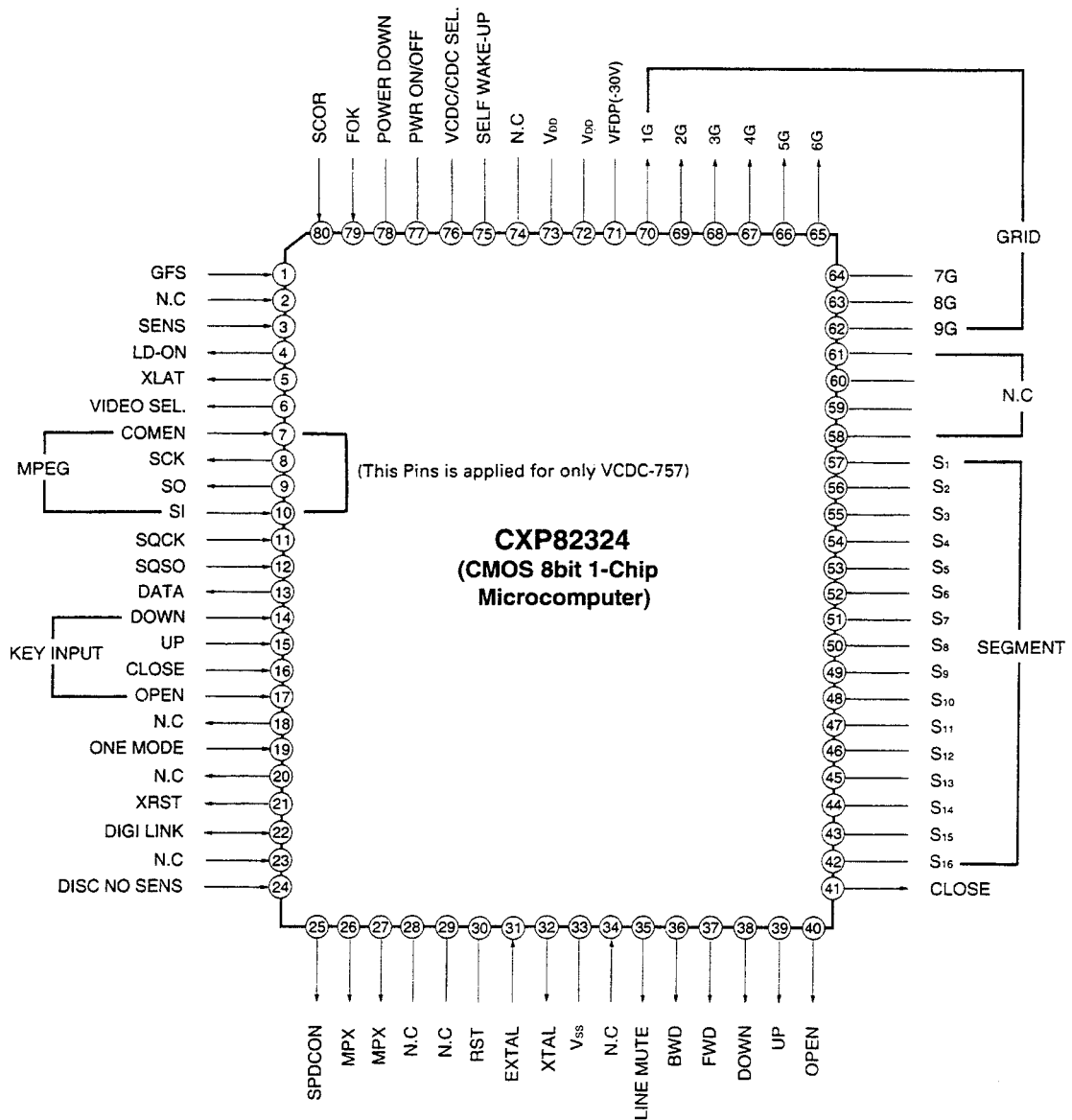
9 CNT P.C.BOARD (PCB3) REMOVAL

1. Remove the Cover Top **7**, referring to the previous step **1**.
2. Disconnect (CP301) from the CNT P.C.Board (PCB3).
3. Remove 2 screws **i** and then remove the CNT P.C.Board (PCB3).

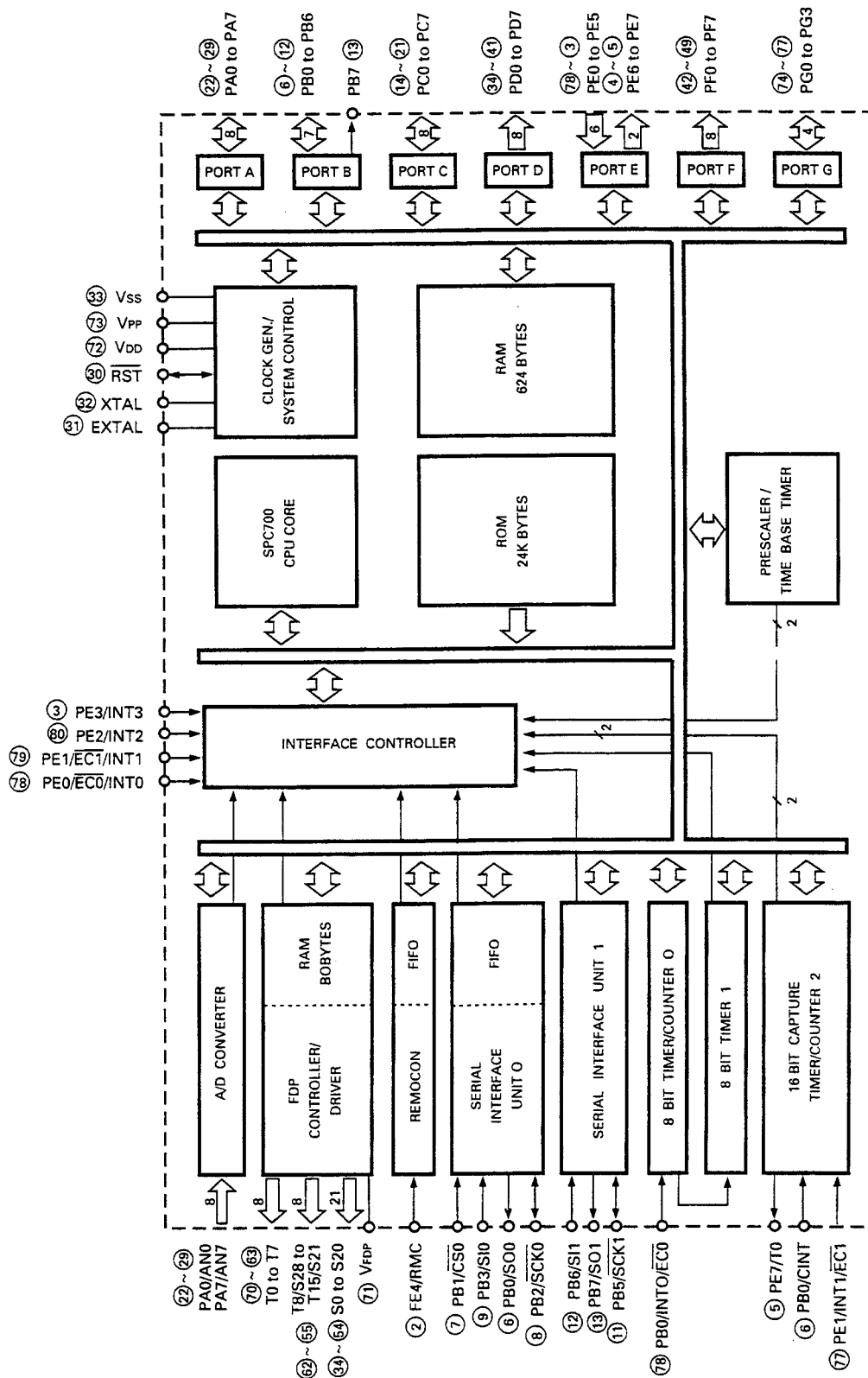
CIRCUIT DESCRIPTION

1. IC201 : CXP82324 (CMOS 8bit 1-Chip Microcomputer)

1-1. Pin Connection Diagram



1-2. Block Diagram



1-3. Input and Output Terminal Functions

Pin No.	Symbol	Description																								
1	GFS	GFS signal input from CXD2515Q.																								
2	NC	Not used !																								
3	SENS	Sense signal output to pick-up unit (M-101).																								
4	LD-ON	LD-on signal output to pick-up unit (M-101).																								
5	XLAT	Serial latch data output to CXD2515Q.																								
6	VIDEO SEL	Output for controlling audio signal to 74HC157. If video CD, then "H" and if normal CD, then "L".																								
7	COMEN (MPEG)	Input for checking data transmission to MPEG CPU.																								
8	SCK (MPEG)	Clock data output to MPEG CPU.																								
9	SO (MPEG)	Serial data output to MPEG CPU.																								
10	SI (MPEG)	Serial data input from MPEG CPU.																								
11	SQCK	Clock data input for subcode-Q readout to CXD2515Q.																								
12	SQSO	Subcode-Q signal input from CXD2515Q.																								
13	DATA	Serial data output to CXD2515Q.																								
14 ~ 17	KEY INPUT	Data input for key scan.																								
18	NC	Not used !																								
19	ONE MODE	Input for test mode for production.																								
20	NC	Not used !																								
21	XRST	Output for resetting CXD2515Q. (At "L", it is active)																								
22	DIGI-LINK	Input for remocon data.																								
23	NC	Not used !																								
24	DISC NO SENS	Roulette sensor data input from mecha.																								
25	SPDCON	Output for roulette motor to stop the disc roulette.																								
26, 27	MPX SEL	According to settings, each MPX mode operates as follows. <table><tr><th colspan="2">Pin No.</th><th colspan="2">Signal Output</th></tr><tr><td>26</td><td>27</td><td>L-CH.</td><td>R-CH.</td></tr><tr><td>"L"</td><td>"H"</td><td>L-CH.</td><td>L-CH.</td></tr><tr><td>"H"</td><td>"L"</td><td>R-CH.</td><td>R-CH.</td></tr><tr><td>"H"</td><td>"H"</td><td>L+R-CH.</td><td>L+R-CH.</td></tr><tr><td>"L"</td><td>"L"</td><td>L-CH.</td><td>L-CH.</td></tr></table>	Pin No.		Signal Output		26	27	L-CH.	R-CH.	"L"	"H"	L-CH.	L-CH.	"H"	"L"	R-CH.	R-CH.	"H"	"H"	L+R-CH.	L+R-CH.	"L"	"L"	L-CH.	L-CH.
Pin No.		Signal Output																								
26	27	L-CH.	R-CH.																							
"L"	"H"	L-CH.	L-CH.																							
"H"	"L"	R-CH.	R-CH.																							
"H"	"H"	L+R-CH.	L+R-CH.																							
"L"	"L"	L-CH.	L-CH.																							
28, 29	NC	Not used !																								
30	RST	Input for resetting CPU. (At "L", it is active)																								
31	EXTAL	Input of 10.0 MHz oscillator crystal.																								
32	XTAL	Output of 10.0 MHz oscillator crystal.																								
33	Vss	Ground																								
34	NC	Not used !																								
35	LINE MUTE	Output for audio mute. (At "H", it is active)																								
36	ROULETTE BWD(-)	Output for driving motor to rotate counter clockwise the roulette.																								
37	ROULETTE FWD(+)	Output for driving motor to rotate counter clockwise the roulette.																								
38	PICK-UP DOWN	Output for chucking motor to draw down the pick-up.																								
39	PICK-UP UP	Output for chucking motor to draw up the pick-up.																								
40	TRAY OPEN	Output for driving motor to open the tray. (At "H", it is active)																								
41	TRAY CLOSE	Output for driving motor to close the tray. (At "H", it is active)																								
42 ~ 57	SEGMENT	Segment signal output for FIP.																								
58 ~ 61	NC	Not used !																								
62 ~ 70	GRID	Grid signal output of for FIP.																								
71	V _{FDP}	-30 V power supply for FIP controller.																								
72, 73	V _{dd}	+5 V power supply for CPU.																								
74	NC	Not used !																								
75	SELF WAKE-UP	Input for waking up CPU.																								
76	VCDC/CDC SEL	Input for selecting VCDC-757 or CDC-757. If "H", then VCDC-757 and if "L", then CDC-757.																								
77	PWR ON/OFF	Output for power off when function changed. (At "L", it is active)																								
78	POWER DOWN	Input for detecting power-down. (At "L", it is active)																								
79	FOK	FOK signal input from CXD2515Q.																								
80	SCOR	GFS signal input from CXD2515Q.																								

2. APC CIRCUIT

A semiconductor laser is used as the light source for the optical pickup. As the laser diode has large negative temperature characteristics in its optical output when driven with a constant current, a circuit must be provided to stabilize this output. For this purpose, a monitor diode which detects the optical output of the laser diode is used in the semiconductor laser.

As the laser diode emits light from its bonded surface, light is emitted both in front and behind. The light emitted behind is monitored with the monitor diode installed on its rear surface, and the optical output is thus controlled. The light emitted in front becomes the light source for the pickup.

Fig. 7 shows the APC circuit.

When the temperature rises and the optical output decreases, the monitor diode current (I_s) decreases, the electric potential of OE-IC pin 24 rises, the base current of the driving transistor increases, and the laser diode current increases. This causes the reduced optical output to return to its former level.

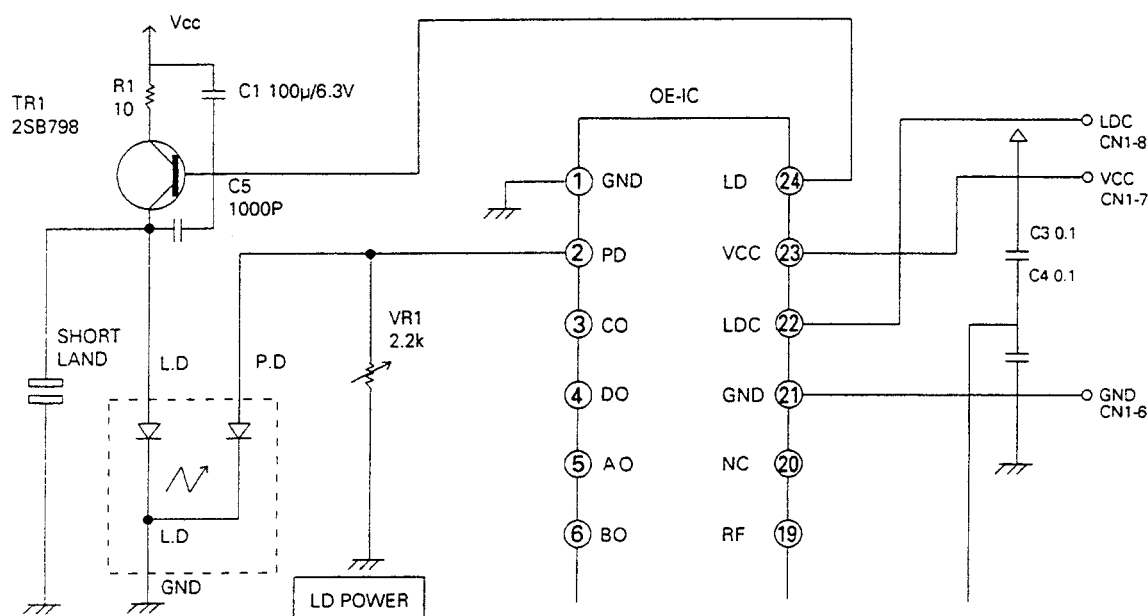


Fig. 7

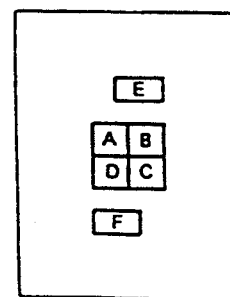
3. FOCUS SERVO

3-1. Optical pickup

This set employs a three-beam optical pickup comprised of six division photodiodes, A through F as shown in Fig. 8. The four photo diodes (A through D) at the center provide focus error detection by using their property to allow the beam to focus into a round image only at a certain point.

The sums of outputs from diagonal two elements of four division photo diodes ($A+C$ and $B+D$) are compared by the differential amplifier in OE-IC to detect the shape of the beam image.

The remaining two diodes (E and F) provide tracking error detection by means of sub-beam spots.



Three spotted (six-division) photo diodes

Fig. 8

3-2. Focus error detecting operation

Fig. 9 shows the reflected laser beam from a disc is polarized 90° with the beam-splitter and sent to the cylindrical lens. The beam passed through this cylindrical lens is then sent to the four division photo diodes and focuses into an image whose shape varies with the distance between the disc and the objective lens. Such change in the beam shape causes the current flowing from the photo diodes to vary.

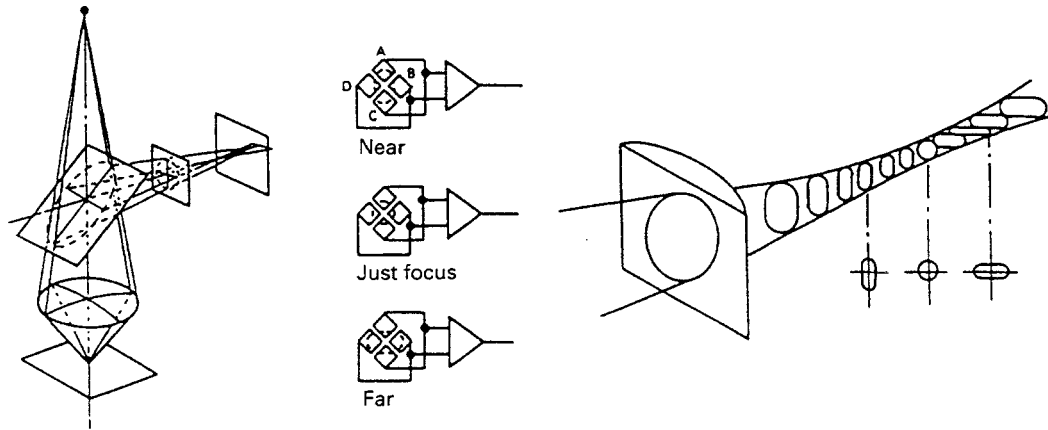


Fig. 9

3-3. Tracking error detection system

Fig. 10 shows the principle of the tracking error detection system which employs the three beam system.

The laser beam is divided into the main beam and two sub-beams by diffraction grating and they are arranged on one line. The center line connecting these three beams has a slight offset angle against the main beam. The main beam is received by photo diodes A, B, C and D and two sub-beams by E and F respectively.

Fig. 10-A shows the on-track state. As both auxiliary beams 1 and 2 are slightly on the track in this state, the outputs of photo diodes E and F are equal and the tracking signal is 0(zero). When the track is shifted to the left (Fig. 10-B), the auxiliary beam 1 is off the pit. This allows more light to be received by the photo diode E, resulting in positive (+) tracking signal output. On the other hand, when the track is shifted to the right (Fig. 10-C), the amount of light received by the photo diode F increases, resulting in negative (-) tracking signal output. And these extreme signals are detected as tracking error signals.

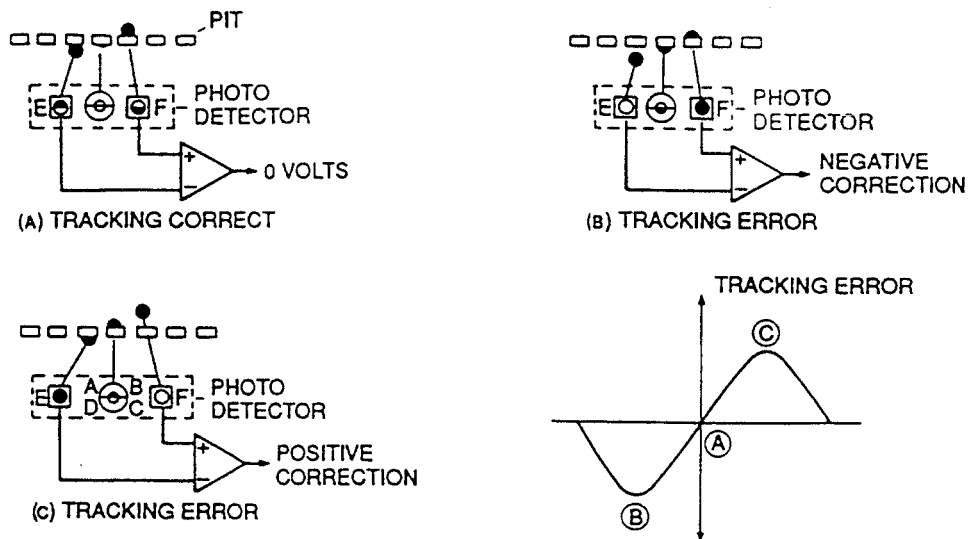
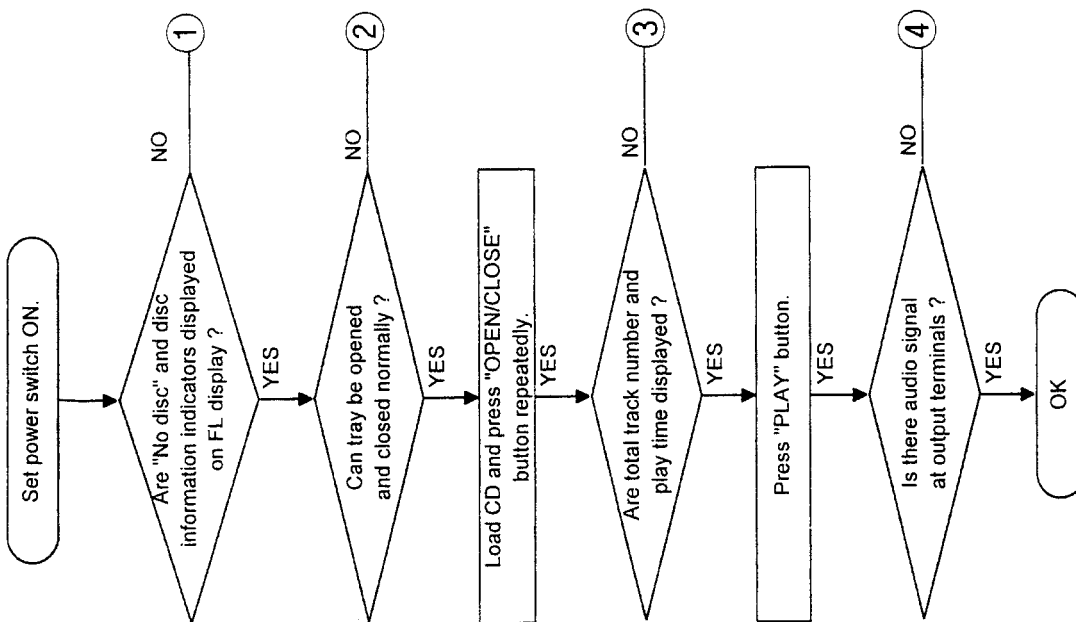
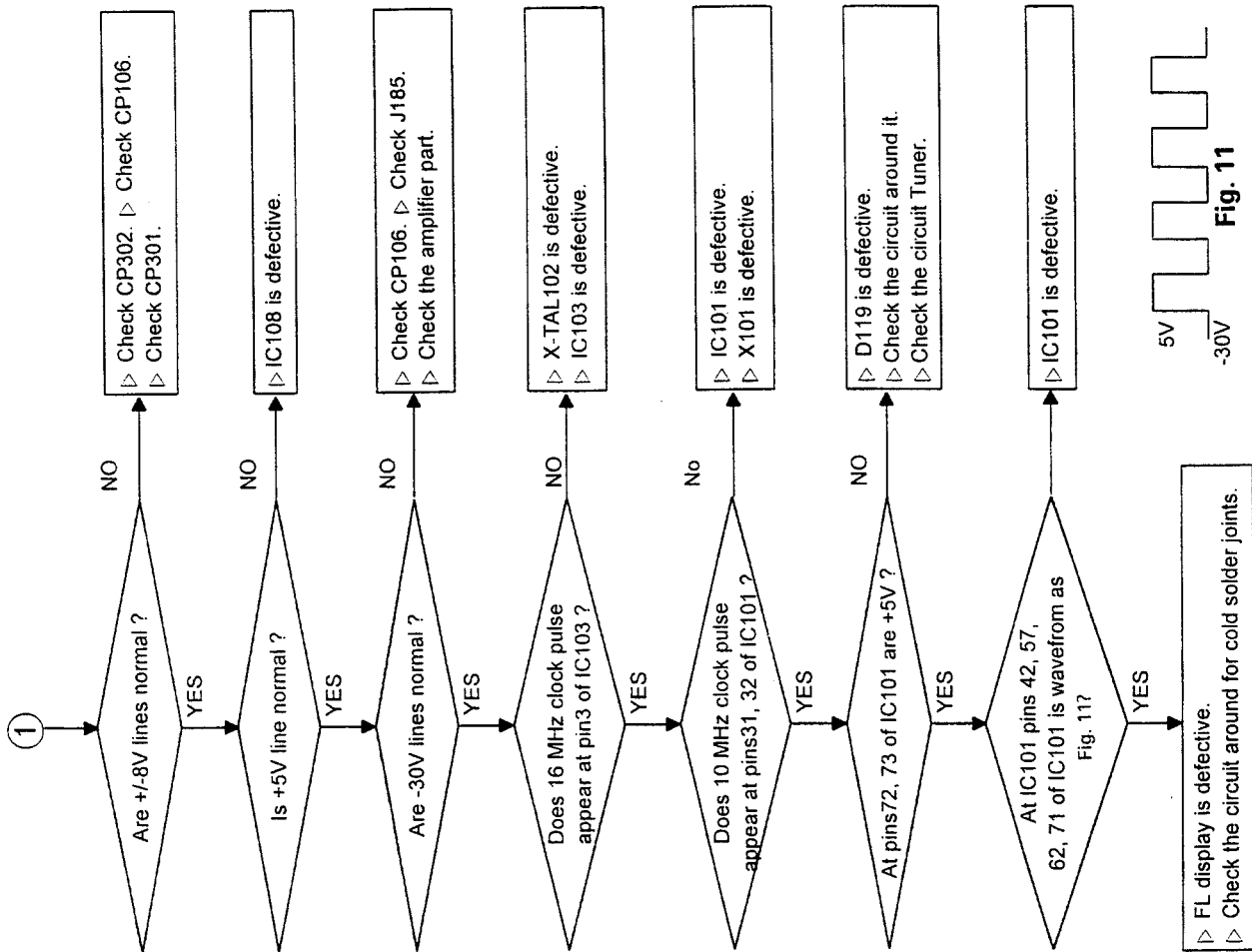


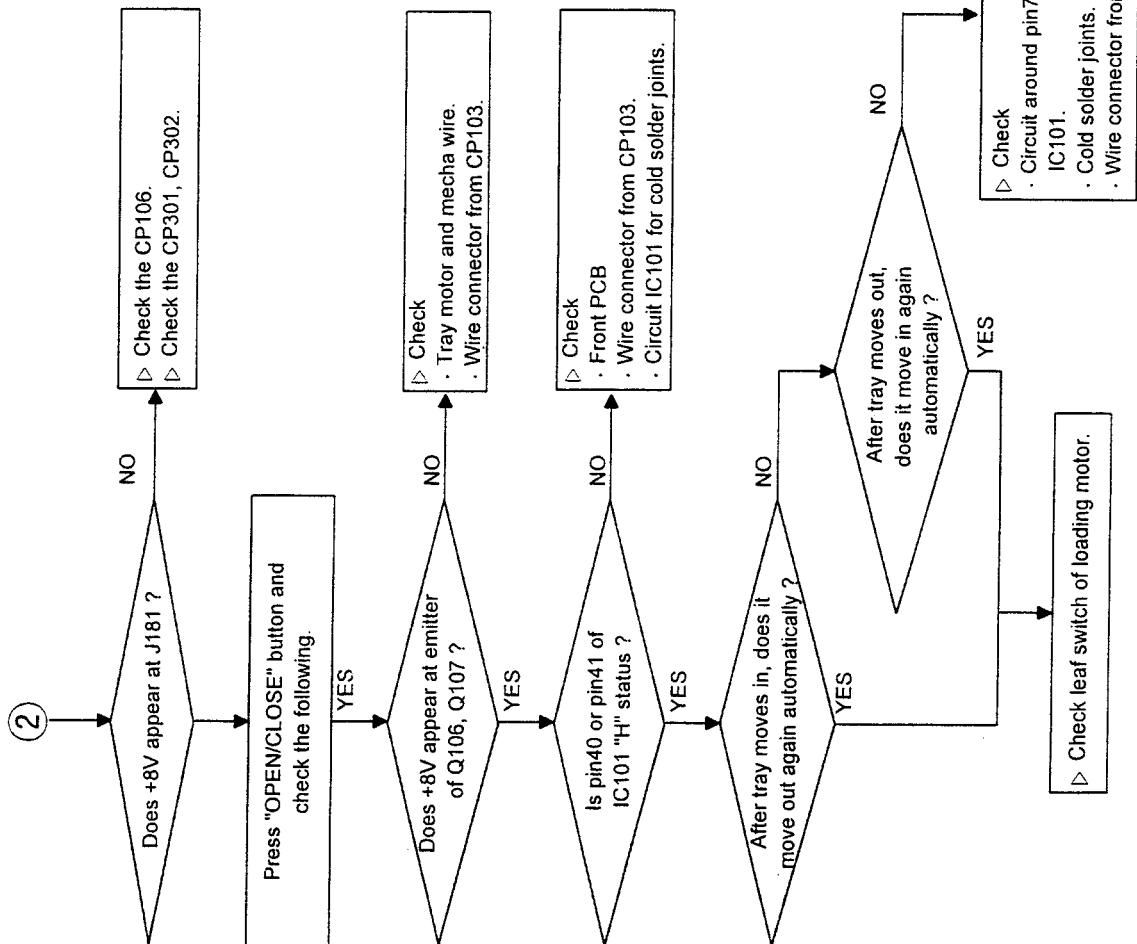
Fig. 10

TROUBLESHOOTING

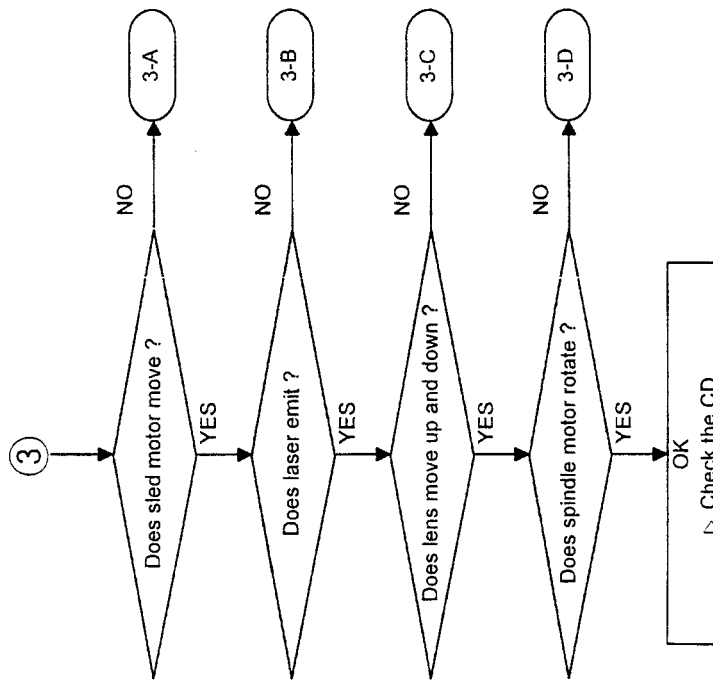
[Repair item 1] At power on, "0" and some parts are not displayed.



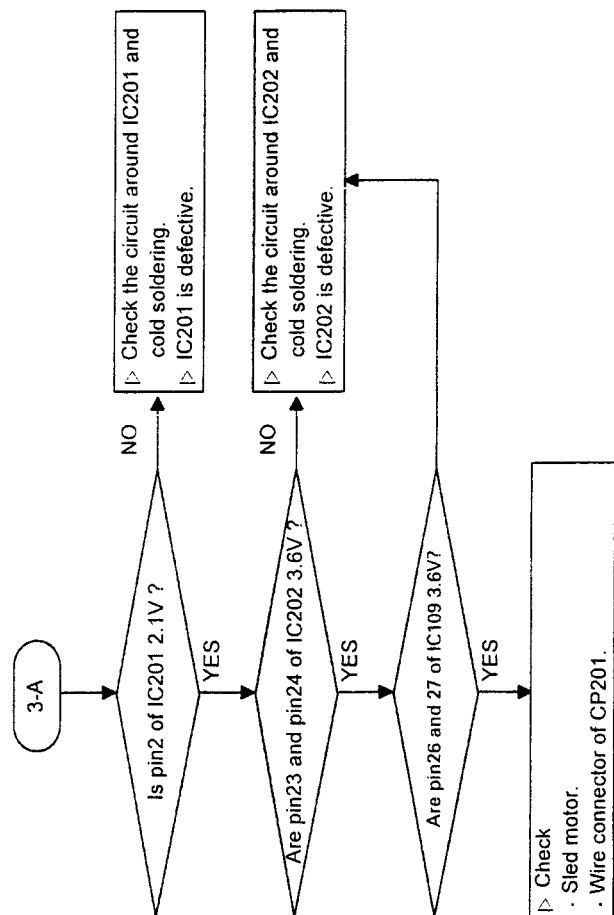
[repair item 2] Tray cannot be opened and closed by pressing "OPEN/CLOSE" button.



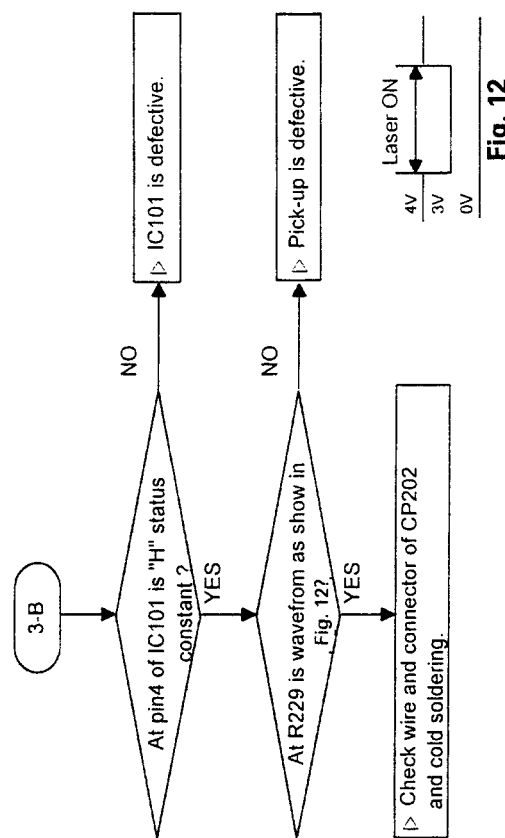
[Repair item 3] "0" is displayed instead of total playing time and track number.



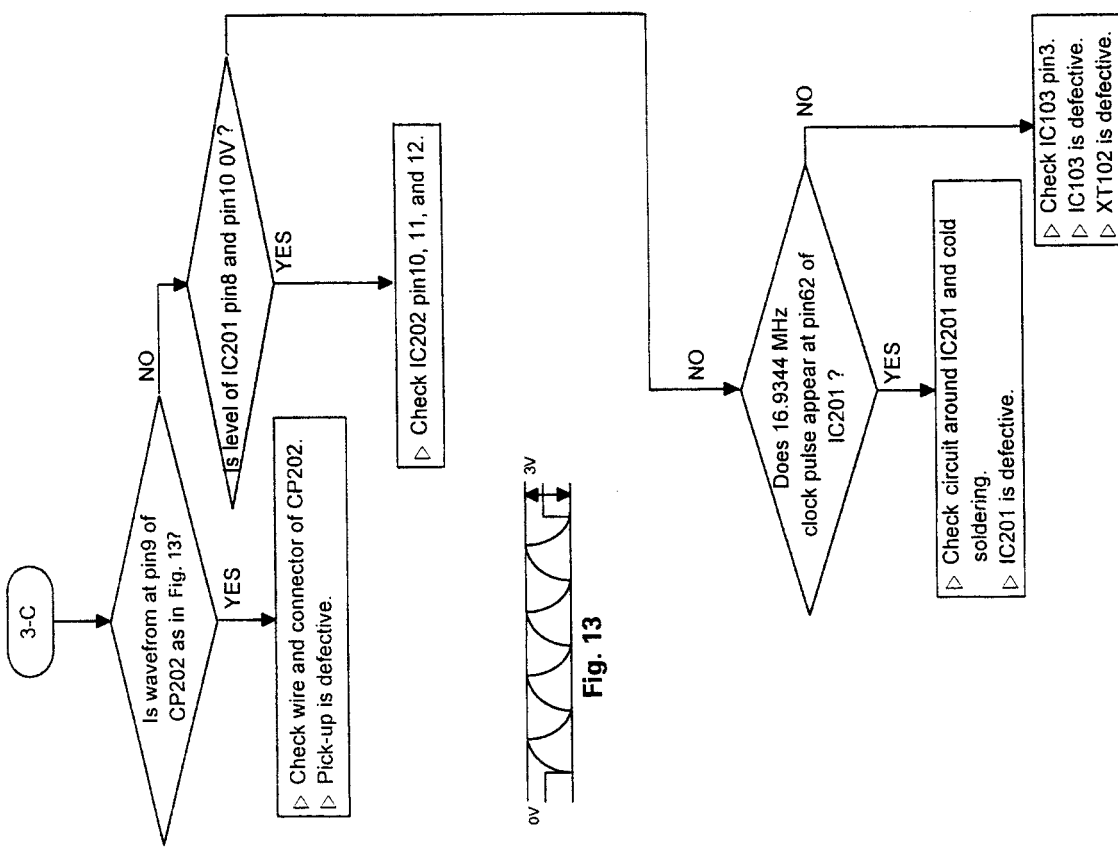
[Repair item 3-A] Sled motor dose not move.



[Repair item 3-B] Laser does not emit.



[Repair item 3-C] Object lens of pickup unit does not move up and down.



[Repair item 3-D] Spindle motor does not rotate.

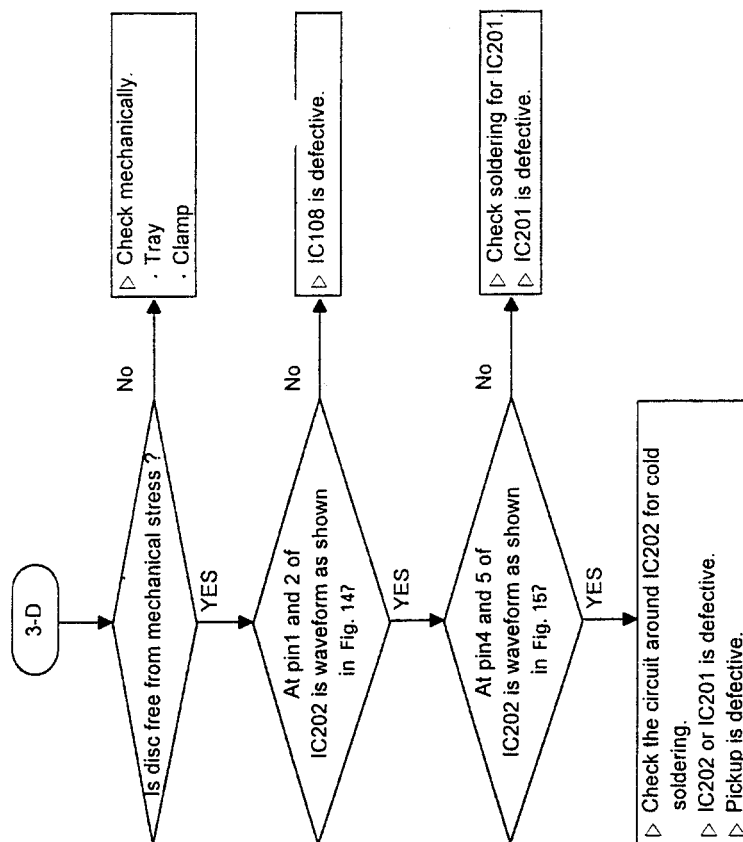


Fig. 14

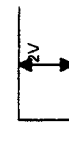
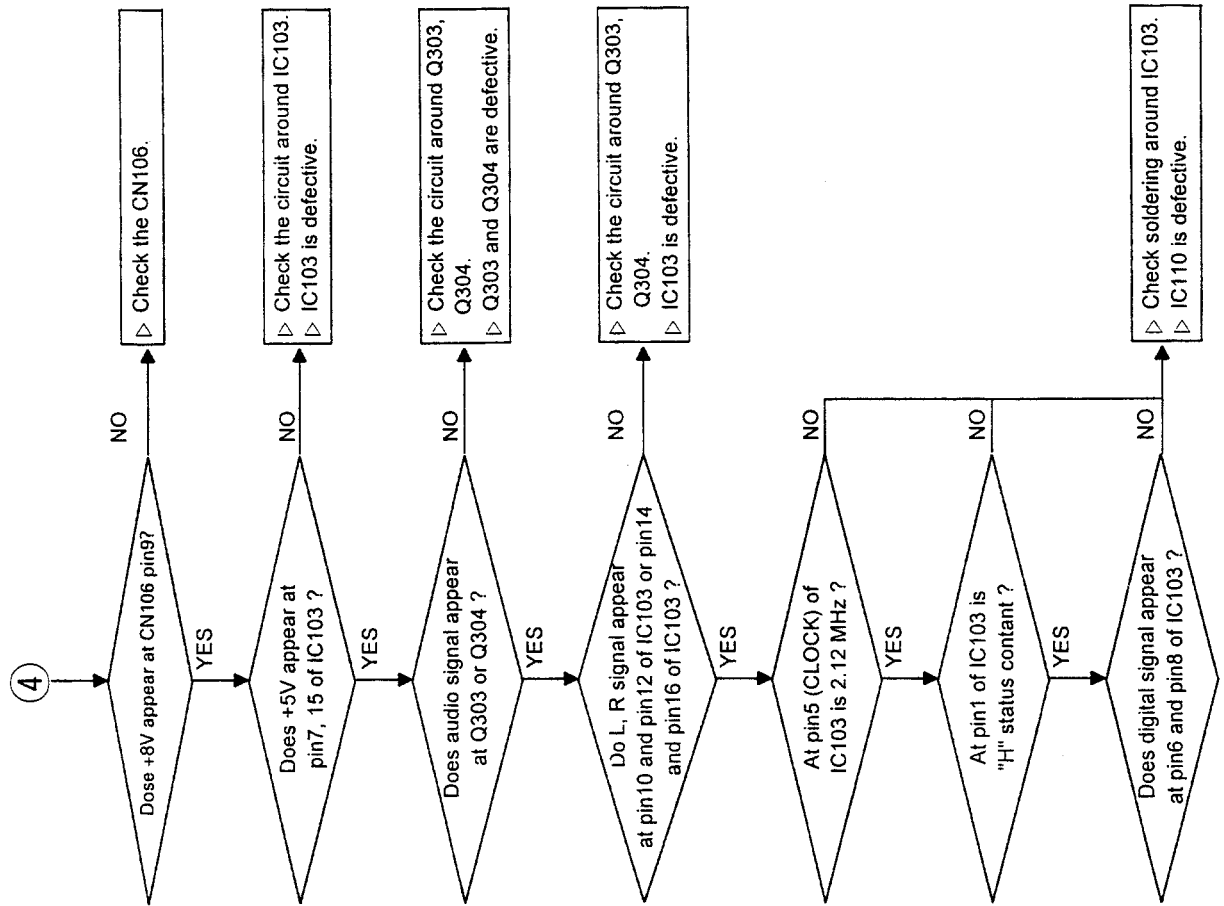


Fig. 15

[Repair item 4] No sound signal.



MECHANICAL PARTS LIST

Ref. No.	Description	Parts No.	Q'ty	Version
	PACKAGE			
	Carton Box	049605258410	1	KS
	Carton Box	049605258403	1	A,D,PT INDO
	Cushion Poly	9722041310	1	
	Film Soft PE	9715000120	1	
	ACCESSORIES			
	Cord Patch, 1P	4328201910	1	KS
	Demo Disc, Video CD	5058001210	1	KS
	CABINET & CHASSIS			
1	Door (CDC757)	048663001412	1	
(1)	Door (VCDC757)	048663001411	1	KS
2	Base Door	6043010510	1	
3	Badge, INKEL	048535045411	1	KS
(3)	Badge, SHERWOOD	048535045421	1	A,D,PT INDO
4	Panel Front (CDC757)	048602019912	1	
(4)	Panel Front (VCDC757)	048602019911	1	KS
5	Window	8553023510	1	
6	Body Front	048521009811	1	
7	Cover Top	046123017911	1	
8	FIP, 9CEM6	2328130322	1	
9	Shield Fence	6163115610	1	
10	Heatsink	7505202410	1	
11	Assembly Mechanism	5728000840	1	
12	Button Function	048543070211	1	
13	Button Skip	048543070311	1	
14	Switch Tact	4658004410	2	
15	Switch Tact	4658003710	10	
16	Foot	6035104310	2	
17	Rubber Foot	6715021230	2	
18	Chassis Main	6121615010	1	
19	Plate Ground	6165143510	1	
20(CP302)	Connector, System	4428513820	1	
21	Jack RCA	4438113810	1	
22	Chassis Back (VCDC757)	046102045111	1	KS
(22)	Chassis Back (CDC757)	046102045211	1	KS
(22)	Chassis Back	046102045221	1	A
(22)	Chassis Back	046102045251	1	D
(22)	Chassis Back	046102045291	1	PT INDO
	HARDWARE KIT			
S1	Screw, #8 BTT 3x8B (VCDC757)	8179130083	27	KS
(S1)	Screw, #8 BTT 3x8B (CDC757)	8179130083	24	
S2	Screw, #2 FTC 3x10B	8129230083	9	
S3	Screw, #B WTT 3x6Y	8179230061	2	
S4	Screw Gurond, 3x10B (VCDC757)	8155000710	2	KS
(S4)	Screw Gurond, 3x10B (CDC757)	8155000710	1	
S5	Screw, #2 BTC 2.6x8B	8109260083	3	
	MISCELLANEOUS			
	Connector, Lead Ass'y, 6P, 80mm	435206082042	1	
	Connector, Lead Ass'y, 14P, 420mm	435214422022	1	
	Card Cable, 12P	4118512100	1	
	Card Cable, 19P	4118619085	1	
PCB1	P.C. Board Main	4004000700	1	
PCB2	P.C. Board DSP	4004000710	1	
PCB3	P.C. Board CNT	4004000730	1	
PCB4	P.C. Board Front 1	4004000720	1	
PCB5	P.C. Board Front 2	4004000750	1	
PCB6	P.C. Board Video Jack (VCDC757)	4004000740	1	KS
(PCB6)	Not Used ! (CDC757)			A,D,PT INDO
PCB7	P.C. Board MPEG (VCDC757)	4009000100	1	KS
(PCB7)	Not Used ! (CDC757)			A,D,PT INDO
11	ASSEMBLY MECHANISM (ICM02D)	5728000840		
1	Gear Center	7105000410	2	
2	Gear Pulley	7105000510	1	
3	Gear Roulette	7105000610	1	
4	Gear Motor	7105000710	1	
5	Gear Worm	7105000810	1	
6	Bracket Side	5505133510	4	
7	Chuck Chassis	6023408710	1	
8	Bracket Motor	6023801010	1	
9	Frame Front	6023601320	1	
10	Guide Chuck	6063103110	1	
11	Gear Loading	7103001910	1	
12	Base D.U	6062101520	1	
13	Cam Gear	7142000510	1	
14	Cover Cam	7142000610	1	
15	Roulette	7121400320	1	
16	Tray Roulette	6021800410	1	
17	Body Mecha	6021601310	1	
18	Rubber Limit	6715022810	2	
19	Rubber Bracket	6715023310	3	
20	Shaft Gear Roulette	7005007910	1	
21	Cover Roulette	6735011410	1	
22	Sheet Tray	6705022510	1	

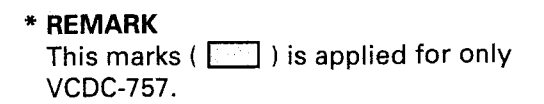
Ref. No.	Description	Parts No.	Q'ty	Version
23	Sheet Tapping	6725003610	1	
24	Belt Loading	7165002510	1	
25	P.C. Board Sensor	4009500500	1	
26	Base Magnet	6063103010	1	
27	Cover Magnet	6023408610	1	
28	Magnet	5125000910	1	
29	Pulley Motor	7113001310	1	
30	Rubber Damping	6715024510	4	
31	Spring Damping	6555014010	4	
32	Poly Washer (C 2.1)	8338300710	1	
33	Poly Washer (C 4.1)	8338301310	1	
34	Poly Washer (C 5.2)	8338301410	1	
35	Poly Washer (C 3.1)	8338301210	1	
36	Screw Mecha	8155001210	3	
37	Screw Damping	8155001610	4	
38	Screw BM 2x3Y	8009120031	2	
39	Screw BM 2.6x4Y	8009126041	4	
40	Screw #1 WPT 2.6x8Y	8159126081	2	
41	Screw #1 BT 2.6x8Y	8109126080	2	
42	Screw #1 BT 3x8Y	8109130081	3	
43	Screw #1 BT 3x10B	8109130101	6	
44	Screw #1 WPT 3x15Y	8159130151	1	
45	Screw BTTS 3x4Y	8109430051	1	
46	Connector, Lead Ass'y, 5P	436105080121	1	
47	Connector, Lead Ass'y, 5P	436105080121	1	
48	Connector, Wafer, 5P	5798100307	1	
49	Connector, Lead Ass'y, 2P	436202070132	1	
50	Connector, Wafer, 2P		1	
51	Resistor, 150 ohm, 1/5 W, J	3069151970	1	
52	Resistor, 10 kohm, 1/5 W, J	3069103970	1	
53	Drive Unit, KSM-2401ABM)	5728001110	1	
54	Motor, RF-500TB-12560	5558001810	1	
55	Motor, FF-130SH-14230	5558200410	1	
56	Switch Lever, SSCF-21004A	4638003410	2	
57	Photo Sensor, SG-23F1	78001111	1	

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚡ in the parts list are of special significance to safety. When replacing a component identified with ⚡, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

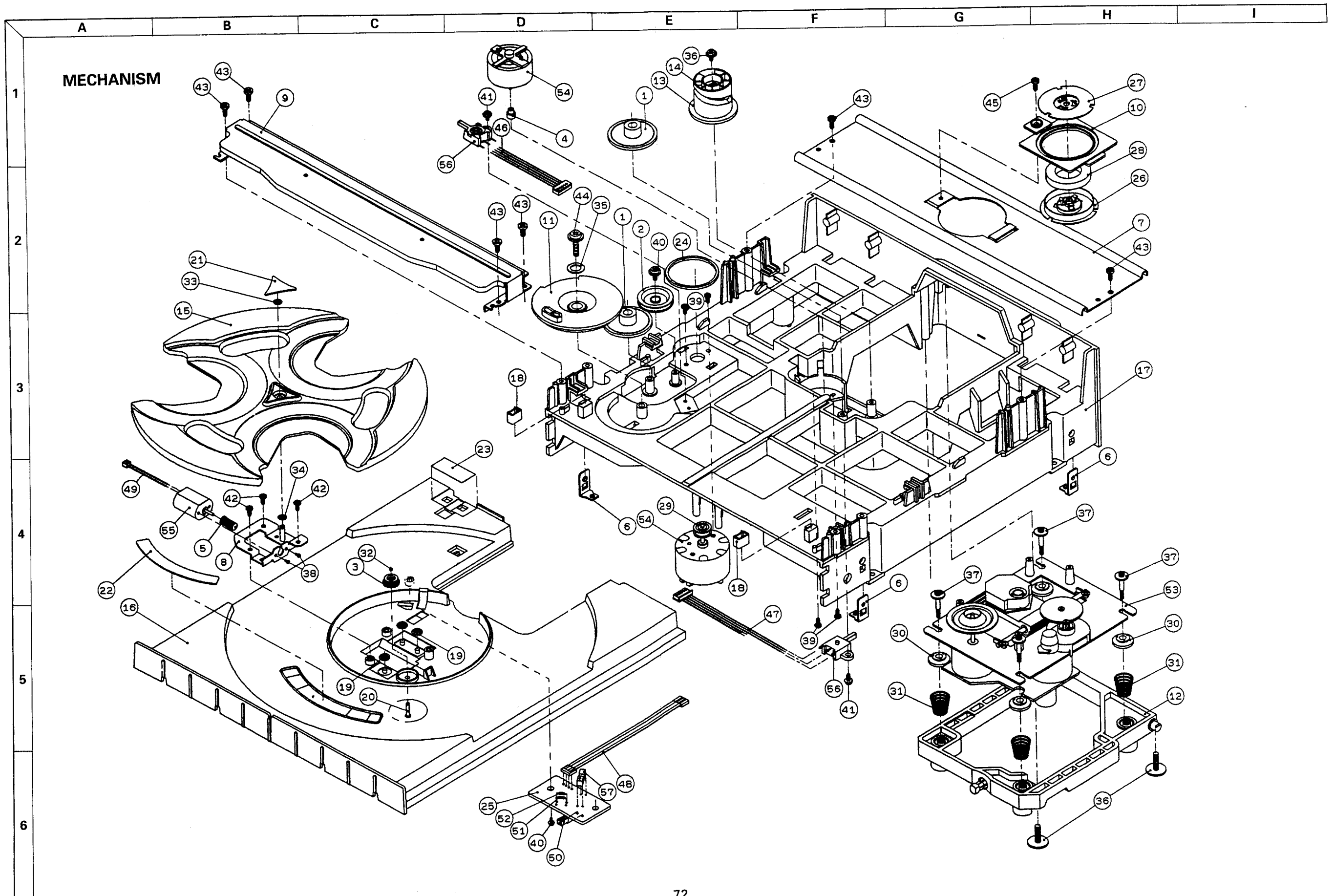
EXPLODED VIEW I

Model No : CDC-757/VCDC-757



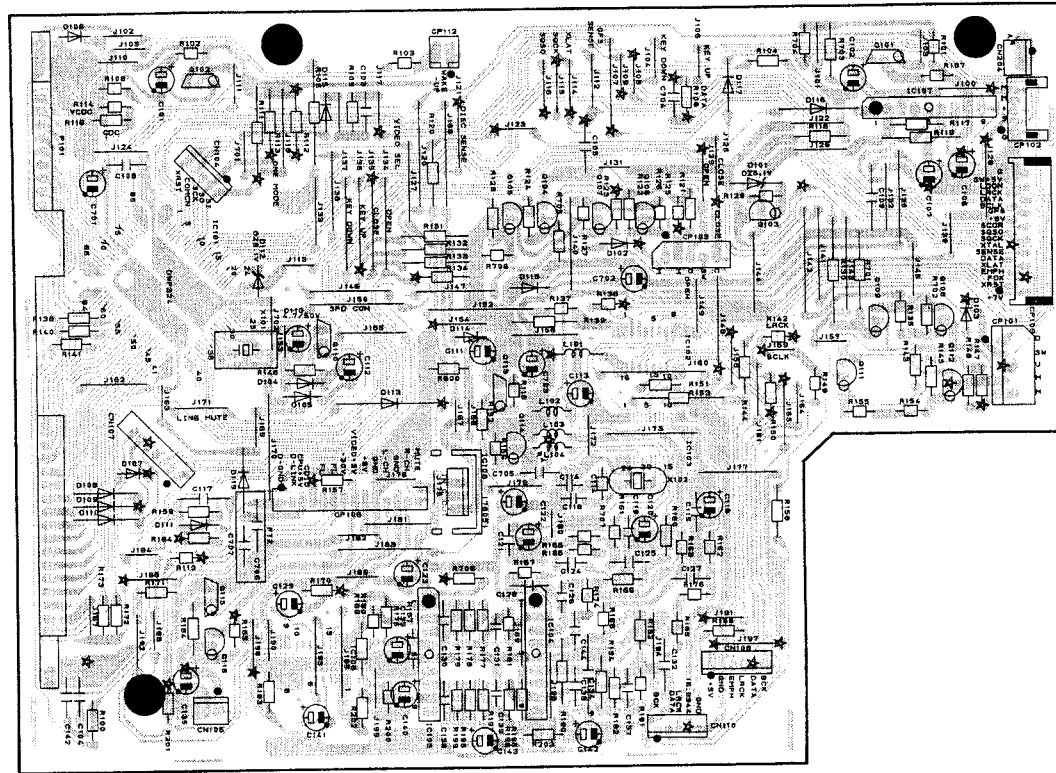
EXPLODED VIEW II

Model No : CDC-757/VCDC-757



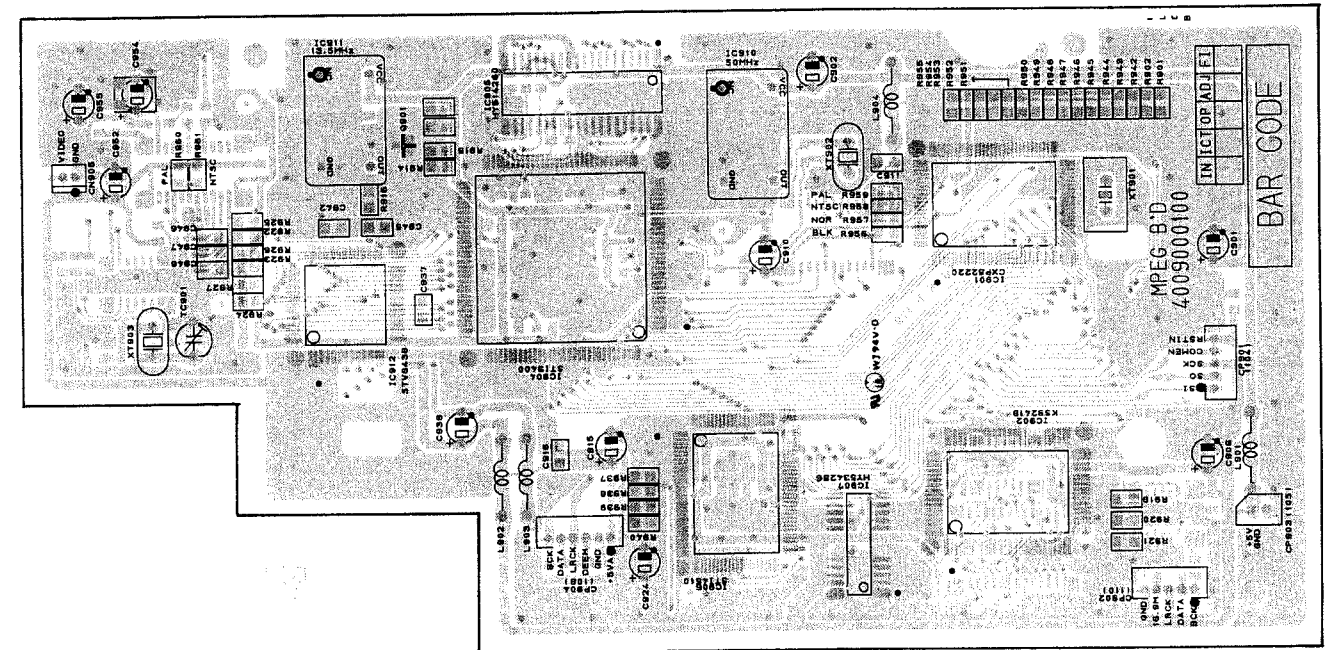
PRINTED CIRCUIT BOARDS

MAIN(PCB1)

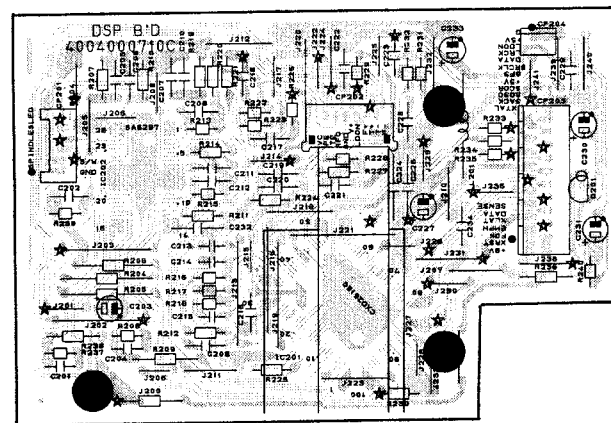


MPEG(PCB7) : VCDC757 ONLY

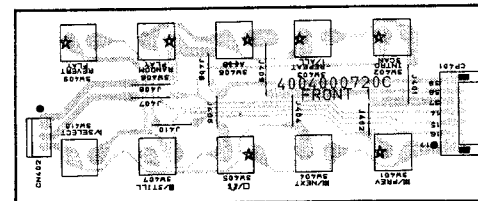
- Top View -



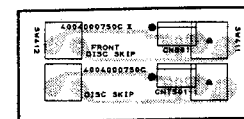
DSP(PCB2)



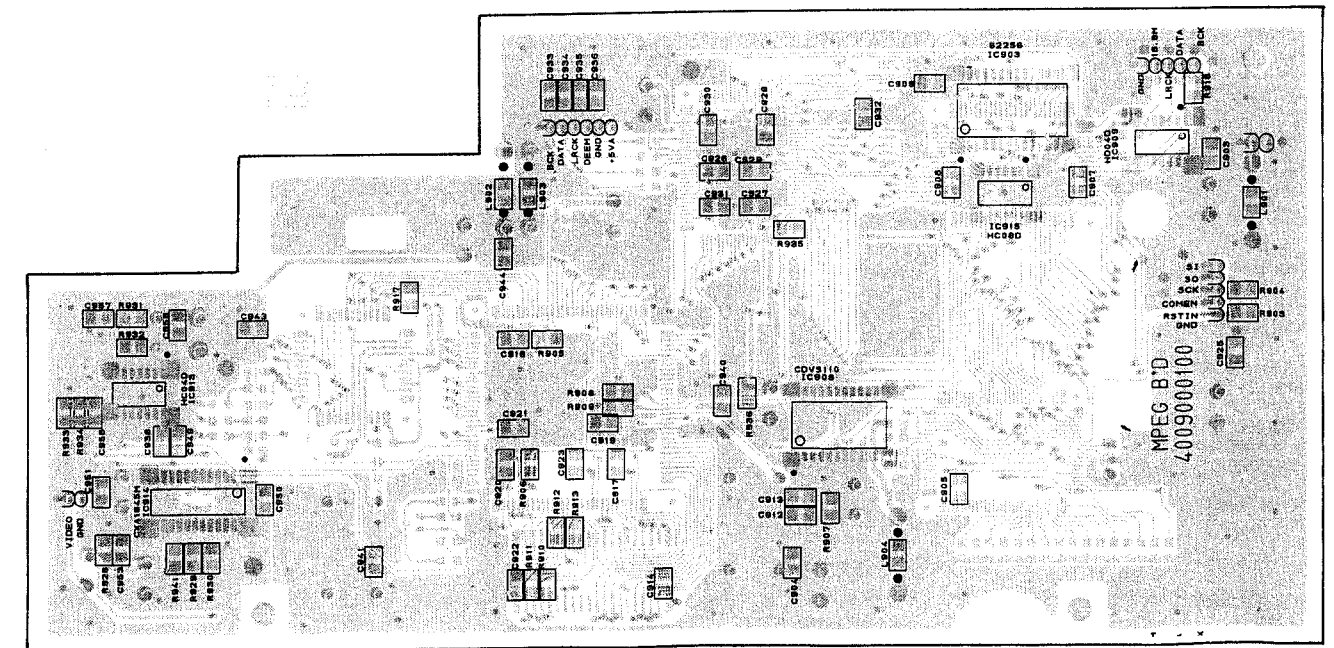
FRONT 1(PCB4)



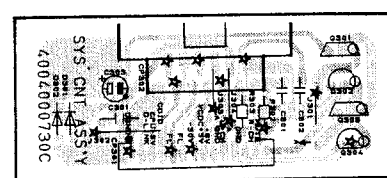
FRONT 2(PCB5)



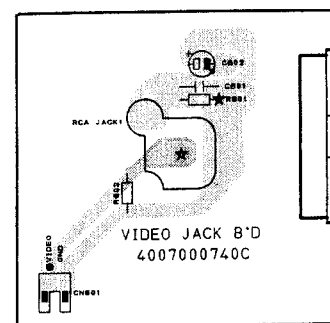
-Bottom View -




CNT(PCB3)



VIDEO JACK(PCB6) : VCDC757ONLY



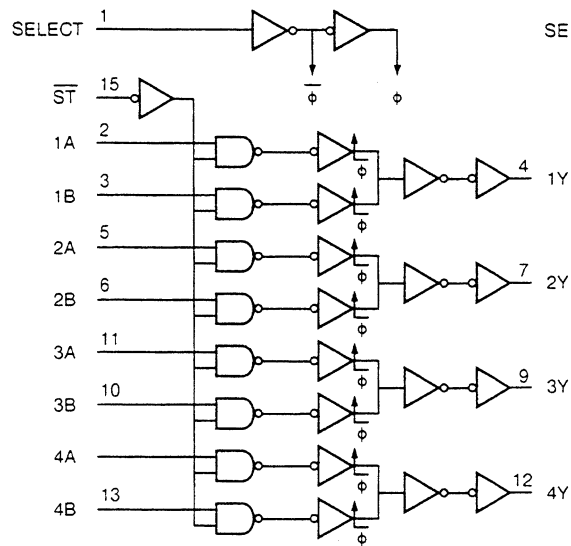
ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTICE : Products marked with  have special characteristics important to safety.
If you replace any of these components, read carefully the product safety notice in this manual.
Don't degrade the safety of the product through improper servicing.
Resistor/Capacitor tolerance - D : (±0.5%), J : (±5%), K : (±10%), M : (±20%), Z : +80, - 20%)

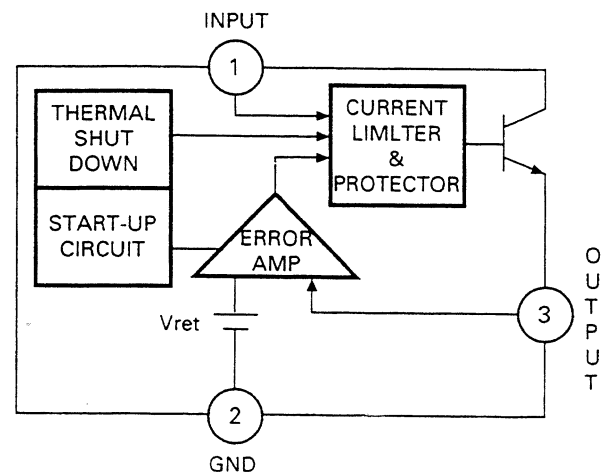
Ref. No.	Description	Parts No.	Q'ty	Version	Ref. No.	Description	Parts No.	Q'ty	Version				
PCB1 ASSEMBLY P.C. BOARD MAIN					PCB2 ASSEMBLY P.C. BOARD DSP								
CAPACITORS					CAPACITORS								
C101	Electrolytic SG	4.7	uF	50 V M	3479347971	1	C201	CeramicTubular	0.002	uF	50 V Z	3519223935	1
C102	Electrolytic SG	100	uF	10 V M	3479310121	1	C202	CeramicTubular	680	pF	50 V J	3519681935	1
C103	Ceramic Tubular	1000	pF	50 V J	3519102935	1	C203	Electrolytic SG	470	uF	10 V M	3479347121	1
C105	Ceramic Tubular	220	pF	50 V J	3519221935	1	C204	CeramicTubular	680	pF	50 V J	3519681935	1
C106/C107	Electrolytic SG	100	uF	10 V M	3479310121	2	C205/C206	CeramicTubular	0.022	uF	50 V Z	3519223935	2
C108/C109	Ceramic Tubular	0.1	uF	50 V J	3519104935	2	C207	CeramicTubular	0.1	uF	50 V Z	3519104935	1
C110	Electrolytic SG	3.3	uF	50 V M	3479333971	1	C208	CeramicTubular	0.0022	uF	50 V Z	3519222935	1
C111	Electrolytic SG	2.2	uF	50 V M	3479322971	1	C210/C211	CeramicTubular	0.1	uF	50 V Z	3519104935	2
C113/C114	Electrolytic SG	100	uF	10 V M	3479310121	2	C212	CeramicTubular	680	pF	50 V J	3519681935	1
C115	Ceramic Tubular	0.022	pF	50 V J	3519223935	1	C214	Mylar	0.0015	uF	100 V J	3679152120	1
C116	Electrolytic SG	100	uF	10 V M	3479310121	1	C216	CeramicTubular	0.01	uF	50 V J	3519103935	1
C117	Ceramic Tubular	220	pF	50 V J	3519221935	1	C217	CeramicTubular	470	pF	50 V J	3519471935	1
C118	Ceramic Disc, CH	33	pF	50 V J	3528330210	1	C219	CeramicTubular	0.1	uF	50 V Z	3519104935	1
C119	Ceramic Tubular	0.022	pF	50 V J	3519223935	1	C220	CeramicTubular	100	pF	50 V J	3519101935	1
C120	Electrolytic SG	100	uF	10 V M	3479310121	1	C221	CeramicTubular	0.01	uF	50 V J	3519103935	1
C121	Ceramic Tubular	0.022	pF	50 V J	3519223935	1	C222	CeramicTubular	0.1	uF	50 V Z	3519104935	1
C122/C123	Electrolytic SG	100	uF	10 V M	3479310121	2	C223	CeramicTubular	470	pF	50 V J	3519471935	1
C124-C128	Ceramic Tubular	120	pF	50 V J	3519121935	5	C224	CeramicTubular	0.022	uF	50 V J	3519101935	1
C129	Electrolytic SG	10	uF	50 V M	3479310071	1	C225	CeramicTubular	0.047	uF	50 V Z	3519473935	1
C130	Ceramic Tubular	100	pF	50 V J	3519101935	1	C226/C229	CeramicTubular	0.022	uF	50 V J	3519223935	2
C131	Mylar	0.001	uF	100 V J	3679102120	1	C230	Electrolytic SG	100	pF	10 V M	3479310121	1
C132	Ceramic Tubular	120	pF	50 V J	3519121935	1	C231	Electrolytic SG	3.3	uF	50 V M	3479333971	1
C133	Electrolytic SG	100	uF	10 V M	3479310121	1	C232	CeramicTubular	0.1	uF	50 V Z	3519104935	1
C134	Ceramic Tubular	120	pF	50 V J	3519121935	1	CONNECTORS						
C135	Electrolytic SG	1	uF	50 V M	3479310971	1	CN109	Wafer, FPC, 19P				4428519826	1
C136	Ceramic Tubular	120	pF	50 V J	3519121935	1	CP201	Wafer, 6P				4428525560	1
C137	Ceramic Tubular	100	pF	50 V J	3519101935	1	CP202	Wafer, FPC, 12P				4428527170	1
C138	Ceramic Tubular	100	pF	50 V J	3519101935	1	CN201	Lead Ass'y, 6P				4358102184	1
C139	Mylar	0.001	uF	100 V J	3679102120	1	INTEGRATED CIRCUITS						
C140	Electrolytic SG	100	uF	10 V M	3479310121	1	IC201	CXD2515Q				2138022116	1
C141	Electrolytic SG	10	uF	50 V M	3479310071	1	IC202	BA6297				2168027202	1
C142	Ceramic Tubular	0.1	uF	50 V J	3519104935	1	TRANSISTOR						
C143	Electrolytic SG	100	uF	10 V M	3479310121	1	Q201	2SD1302				2008610102	1
C144	Ceramic Tubular	120	pF	50 V J	3519121935	1	RESISTORS						
C701	Electrolytic SG	470	uF	10 V M	3479347121	1	R200	Carbon Film	22	kohm	1/5 W J	3069223970	1
C702	Electrolytic SG	470	uF	10 V M	3479347121	1	R201	Carbon Film	68	kohm	1/5 W J	3069683970	1
C704	Ceramic Tubular	1000	pF	50 V J	3519102935	1	R202	Metal Film	100	ohm	1/5 W J	3029101970	1
CONNECTORS					CONNECTORS								
CN104	Lead Ass'y, 5P, 220mm				436205223782	1	R203	Carbon Film	22	kohm	1/5 W J	3069223970	1
CN105	Lead Ass'y, 2P, 80mm				436101083167	1	R204-R206	Carbon Film	15	kohm	1/5 W J	3069153970	3
CN106	Lead Ass'y, 14P, 420mm				435214423822	1	R207/R208	Carbon Film	7.5	kohm	1/5 W J	3069752970	2
CN107	Lead Ass'y, 7P, 180mm				436207183332	1	R209	Carbon Film	15	kohm	1/5 W J	3069153970	1
CN108	Lead Ass'y, 6P, 80mm				436206083132	1	R210	Carbon Film	7.5	kohm	1/5 W J	3069752970	1
CN110	Lead Ass'y, 5P, 100mm				436205103132	1	R211	Carbon Film	15	kohm	1/5 W J	3069153970	1
CP101	Wafer, 5P				4428513450	1	R213/R214	Carbon Film	68	kohm	1/5 W J	3069683970	2
CP102	Wafer, 5P				4428525550	1	R215	Carbon Film	7.5	kohm	1/5 W J	3069752970	1
CP103	Wafer, 5P				4428506910	1	R219	Metal Film	4.7	ohm	1/5 W J	3029479970	1
CP109	Wafer, FPC, 19P				4428526316	1	R220	Carbon Film	22	kohm	1/5 W J	3069223970	1
DIODES					DIODES								
D101	Zener, UZ 5.1 BSB				2258599103	1	R221	Carbon Film	68	kohm	1/5 W J	3069683970	1
D102-D111	1N4148, Switching				2058322101	10	R222	Carbon Film	12	kohm	1/5 W J	3069123970	1
D112	Zener, UZ 5.1 BSB				2258599103	1	R223	Carbon Film	33	kohm	1/5 W J	3069333970	1
D113-D119	1N4148, Switching				2058322101	7	R224	Carbon Film	1 Mohm	1/5 W J	3069105970	1	
INTEGRATED CIRCUITS					INTEGRATED CIRCUITS								
IC101	CXP82324-330Q				2139322703	1	R226	Carbon Film	15	kohm	1/5 W J	3069153970	1
IC102	GD74HC157				2139036002	1	R227	Carbon Film	10	kohm	1/5 W J	3069103970	1
IC103	SM5874AM, DA Converter				2139937001	1	R228/R230	Carbon Film	100	kohm	1/5 W J	3069104970	2
IC104/105	KIA4559S/KIA75559S				2168206103	2	R231	Carbon Film	15	kohm	1/5 W J	3069153970	1
IC106	NJM4052BCF				2168027107	1	R232	Carbon Film	100	kohm	1/5 W J	3069104970	1
IC107	TA7291S				2168007204	1	R233-R225	Metal Film	330	ohm	1/5 W J	3029331970	3
IC108	KA7805, Regulator				2168602105	1	R236	Metal Film	1	kohm	1/5 W J	3029102970	1
COILS					COILS								
L101-L104	Inductor, 10 uH				2648610082	4	R237	Carbon Film	7.5	kohm	1/5 W J	3069752970	1
TRANSISTORS					TRANSISTORS								
Q101/Q102	DTC114YS				2208622106	2	R238	Carbon Film	15	kohm	1/5 W J	3069153970	1
Q103-Q105	KTC3198Y, NPN				2208606105	3	R239	Carbon Film	7.5	kohm	1/5 W J	3069752970	1
Q106/Q107	KTA1015/BKTA1266Y, PNP				2208206105	2	R240	Carbon Film	4.7	kohm	1/5 W J	3069472970	1
Q108/Q109	KTC3198Y, NPN				2208606105	2	PCB3 ASSEMBLY PCB CNT						
Q110	DTC114YS				2208622106	1	C301/C302	Capacitor, Mylar	0.0022	uF	100 V J	3679222120	2
Q111/Q112	KTA1015/BKTA1266Y, PNP				2208206105	2	C303	Capacitor, Electrolytic SG	47	uF	16 V M	3479347031	1
Q113	DTC114YS				2208622106	1	C304	Capacitor, Ceramic Tubular	0.047	uF	50 V J	3519473935	1
Q114	KTA966A/KTA1273, PNP				2228106104	1	CP301	Connector, Wafer, 14P				4428517310	1
Q115	DTC114YS				2208622106	1	20(CP302)	Connector, Wafer, 13P				4428513820	1
Q116	KTA966A/KTA1273, PNP				2228106104	1	D301/D302	Diode, 1N4148, Switching				2058322101	2
RESISTORS					RESISTORS								
R100/R101	Carbon Film	2.2	ohm	1/5 W J	3069229970	2	Q301	Transistor, DTA114YS				2208222105	1
MISCELLANEOUS					MISCELLANEOUS								
X101	Resonator, CST10.00MTW				3938131750	1	Q302/Q303	Transistor, DTC323TS				2238422100	2
X102	Crystal, 16.9344 MHz				3938101500	1	Q304	Transistor, DTC114YS				2208622106	1
8	FIP, 9CEM6				2328130322	1	R302/R303	Resistor, Metal Film	100	ohm	1/5 W J	3029101970	

IC FUNCTIONAL BLOCK DIAGRAM

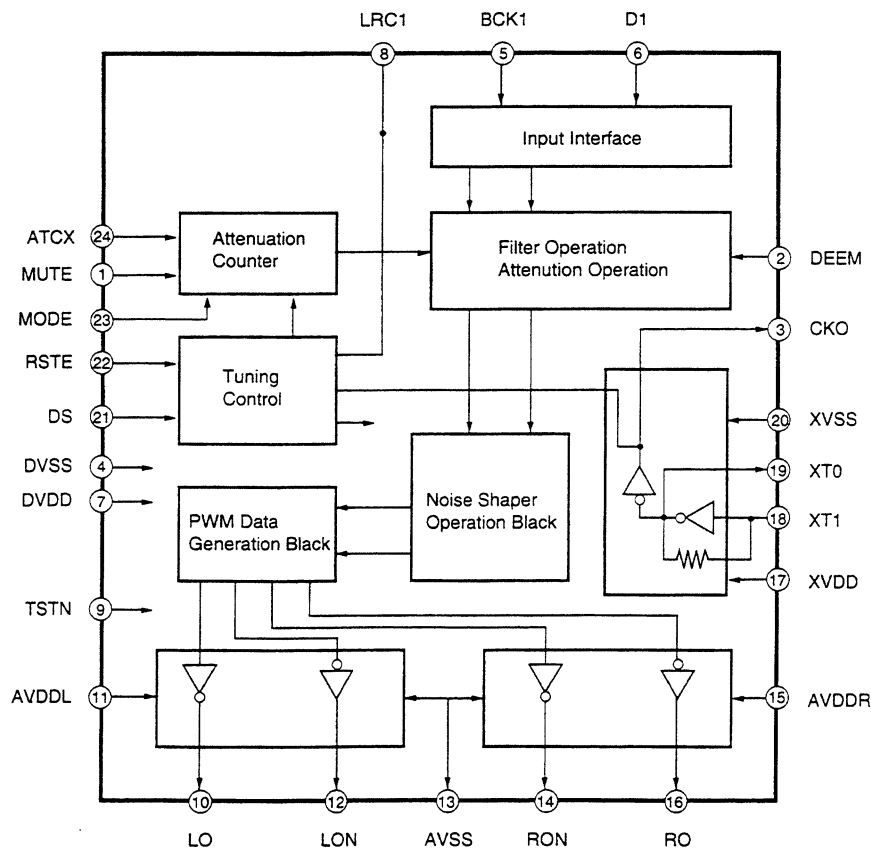
IC102 : GD74HC157



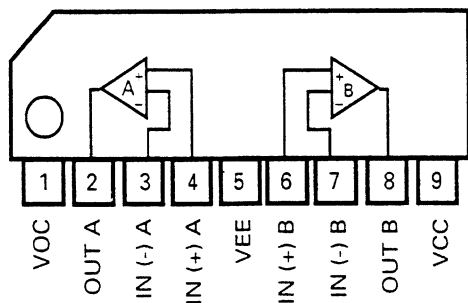
IC108 : KA7805



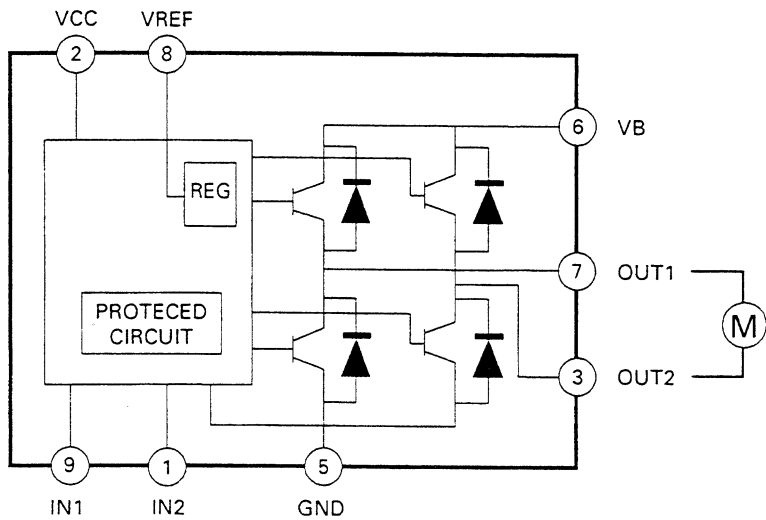
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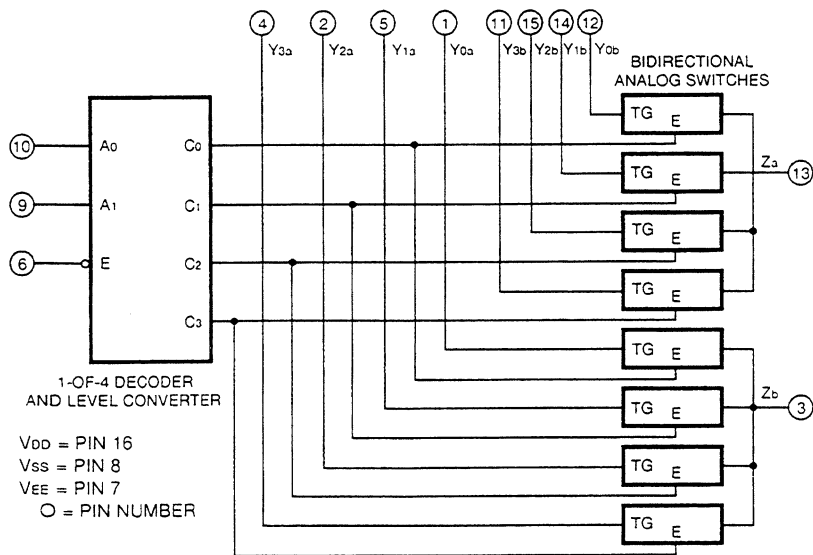
IC104/IC105
: KIA4559S/KIA75559S



IC107 : TA7291S



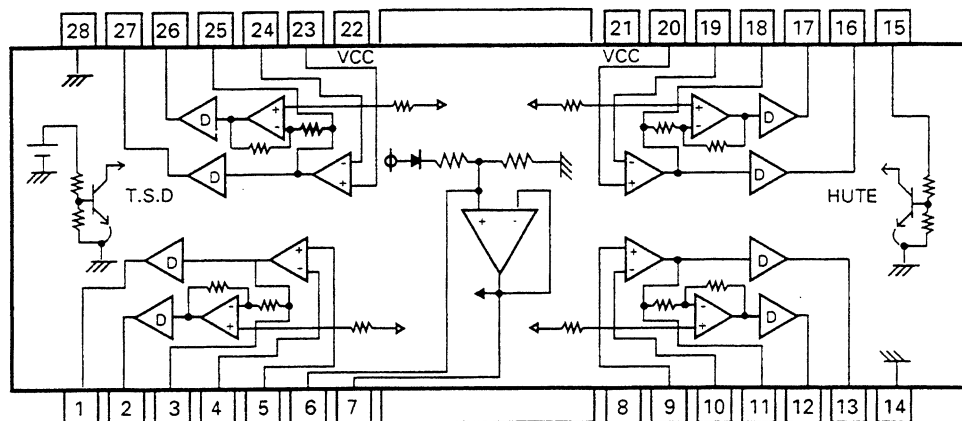
IC106 : NJM4052 BCF



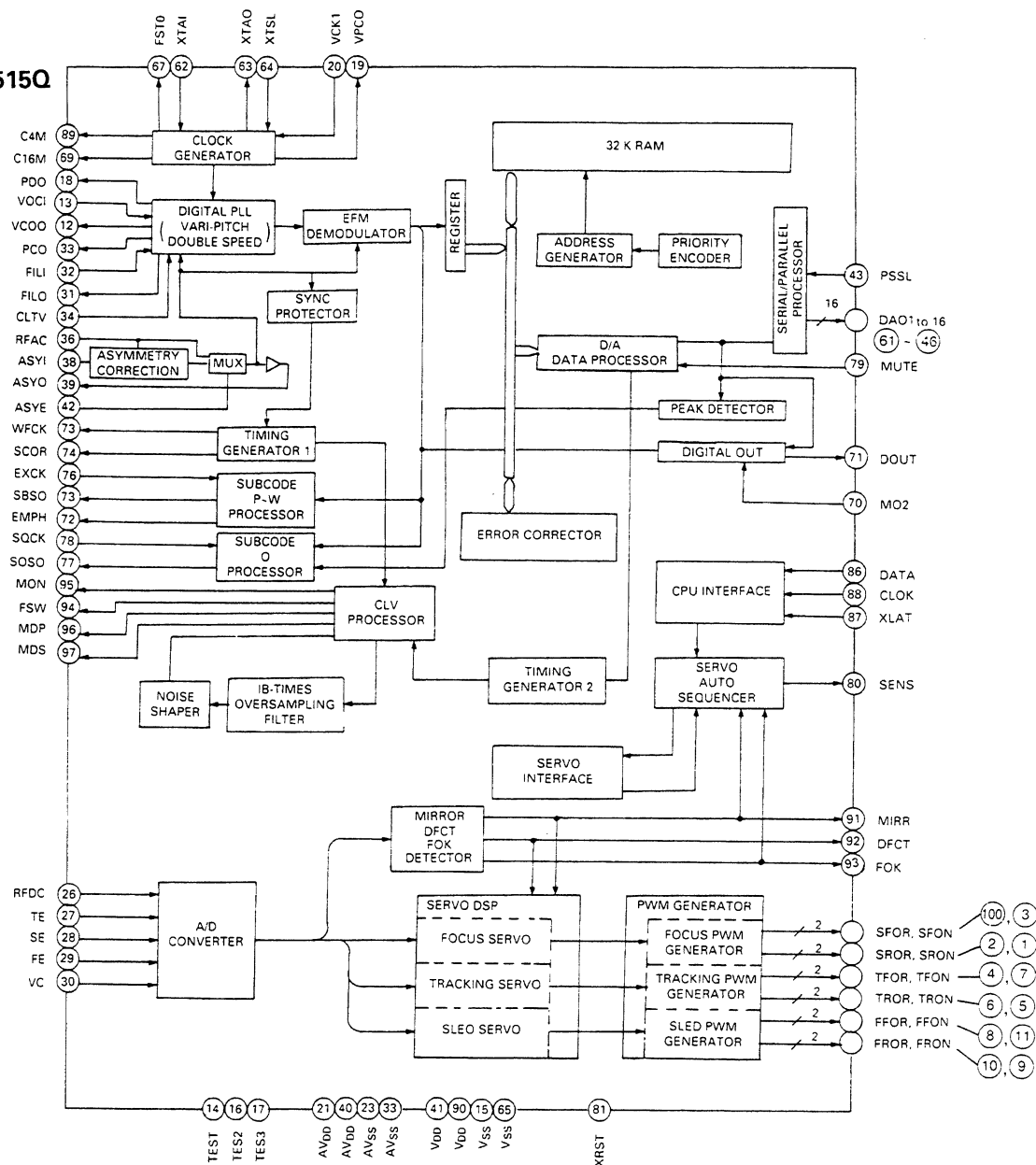
TRUTH TABLE

INPUT			CHANNELS			
E	A ₁	A ₀	Y ₀ - Z	Y ₁ - Z	Y ₂ - Z	Y ₃ - Z
L	L	L	ON	OFF	OFF	OFF
L	L	H	OFF	ON	OFF	OFF
L	H	L	ON	OFF	ON	OFF
L	H	H	ON	OFF	OFF	ON
H	X	X	ON	OFF	OFF	OFF

IC202 : BA6297

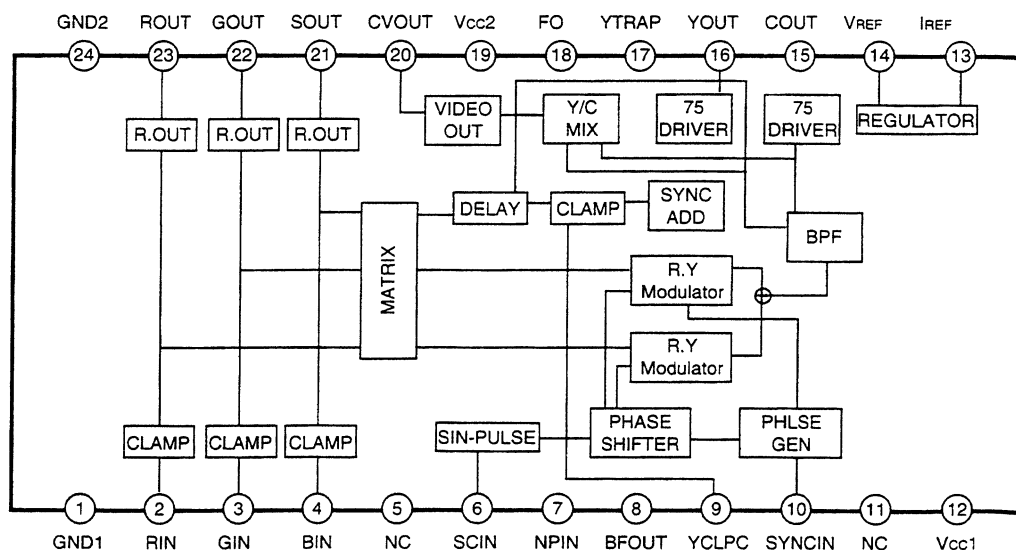


IC201 : CXD2515Q

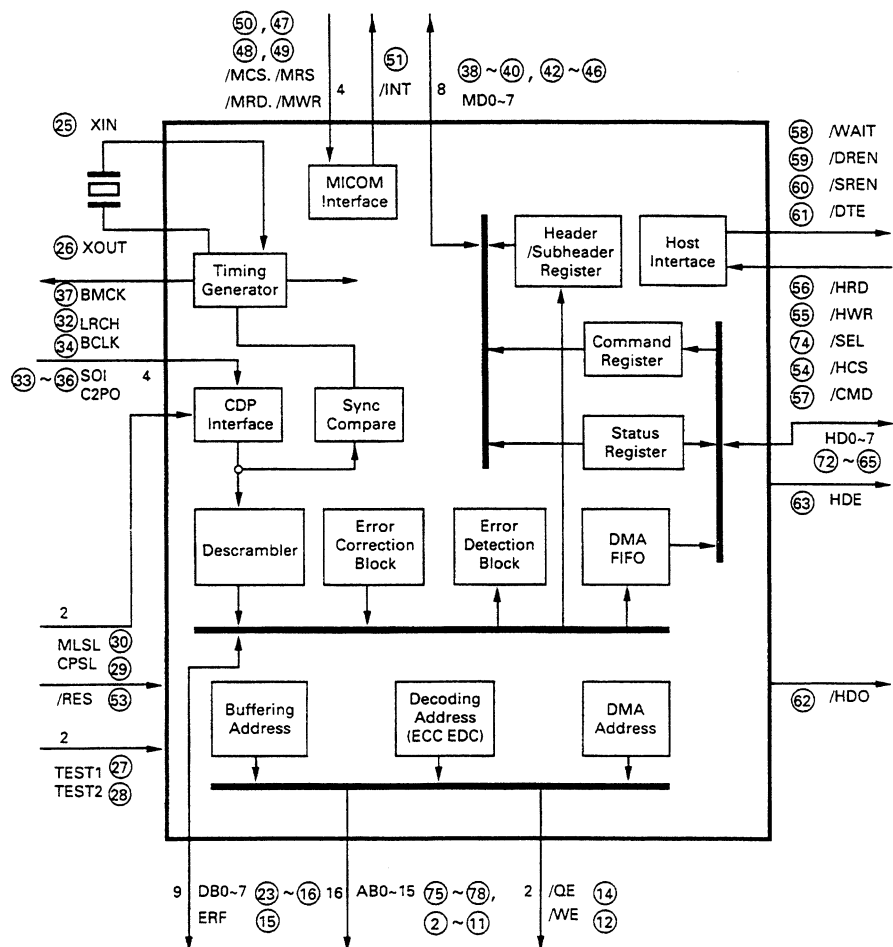


MPEG PART

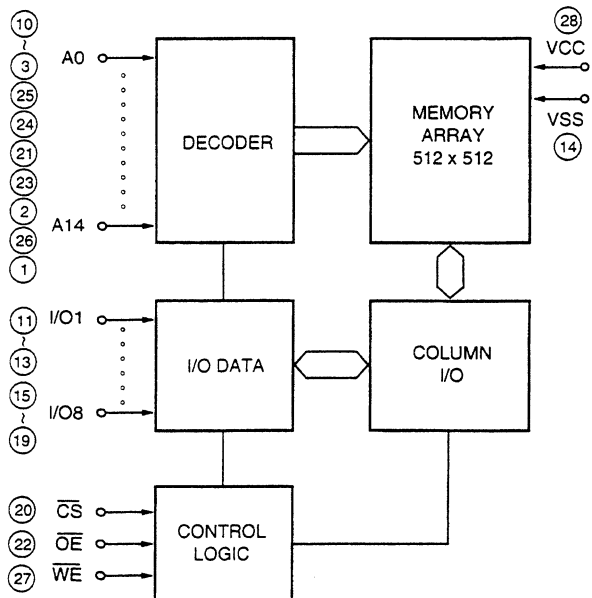
U914 :
CXD1645N - T6



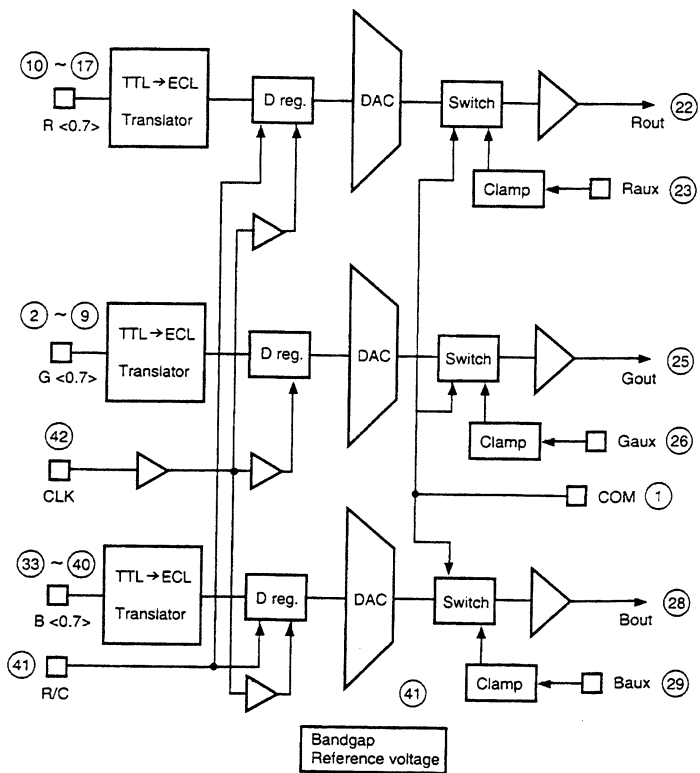
U902 : KS9241B



U903 : HY62256ALJ

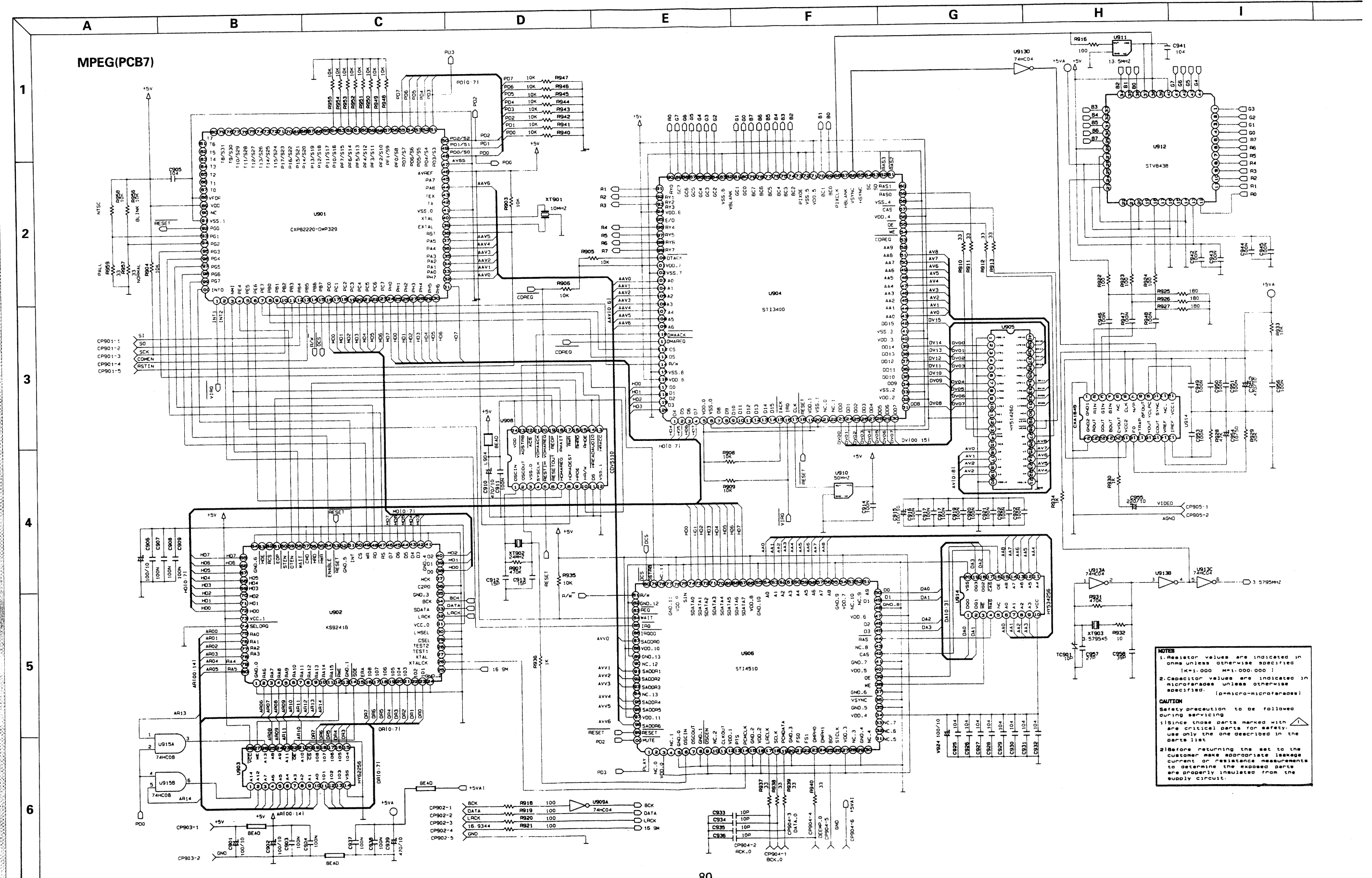


U912 : STV8438CV

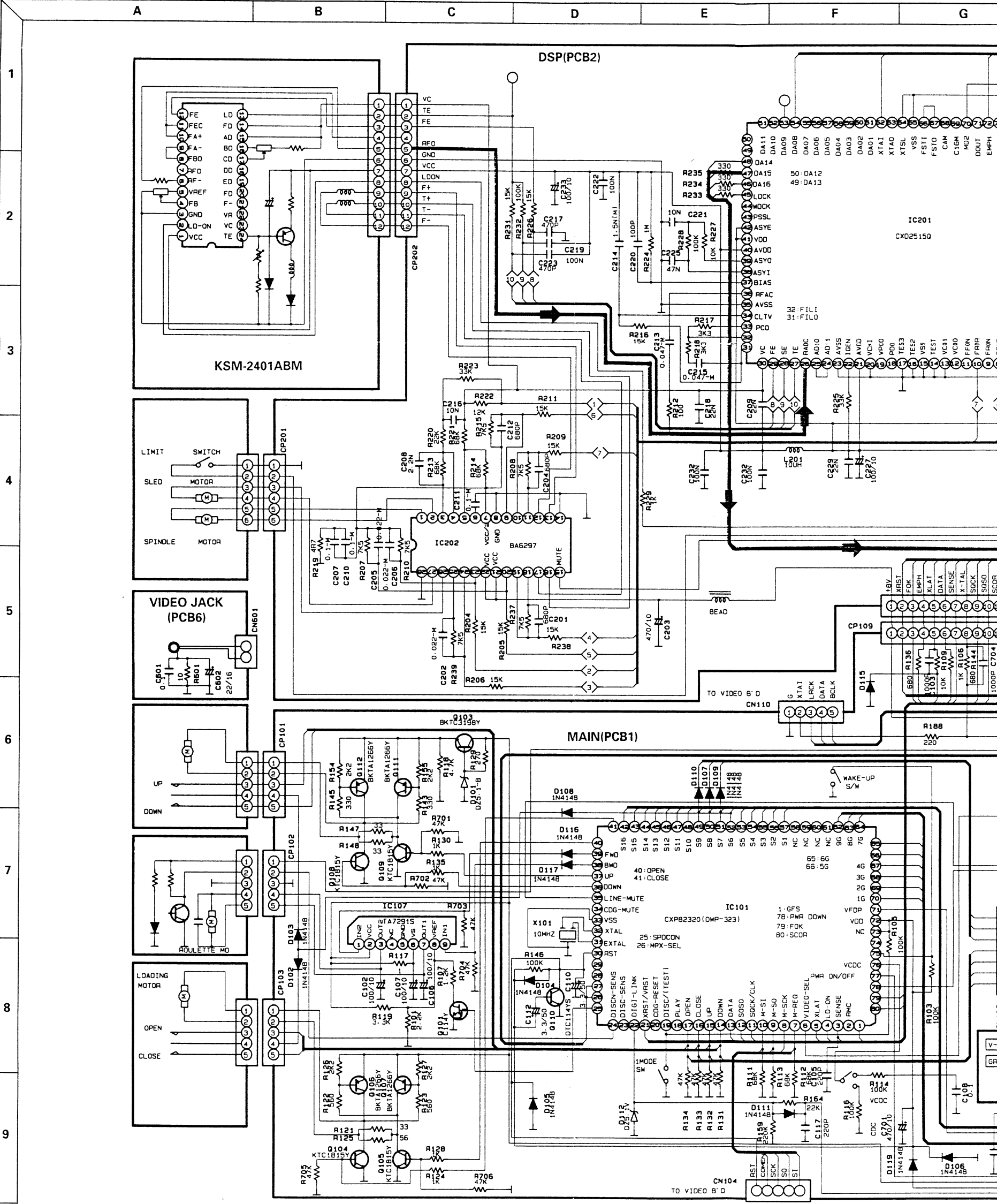


SCHEMATIC DIAGRAM I

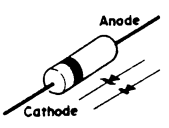
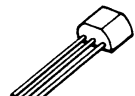
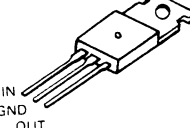
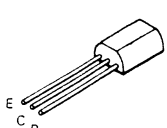
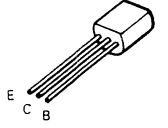
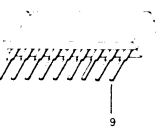
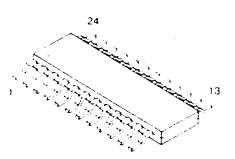
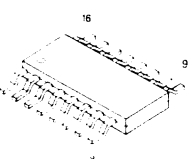
Model No. : VCDC-757

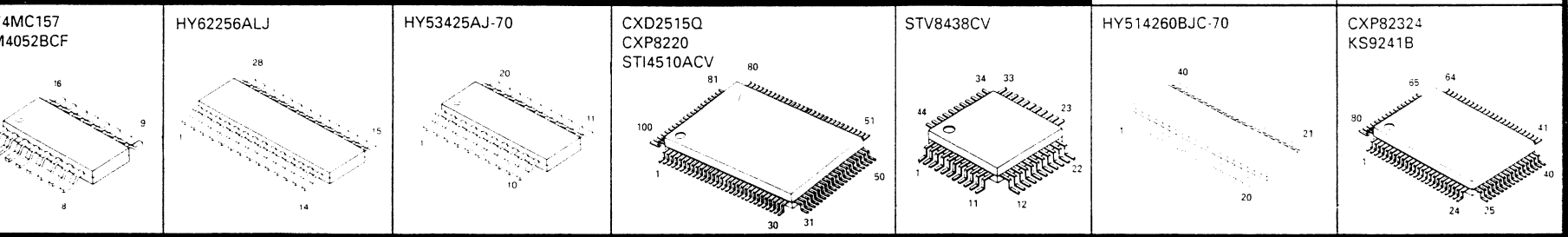


SCHEMATIC DIAGRAM II

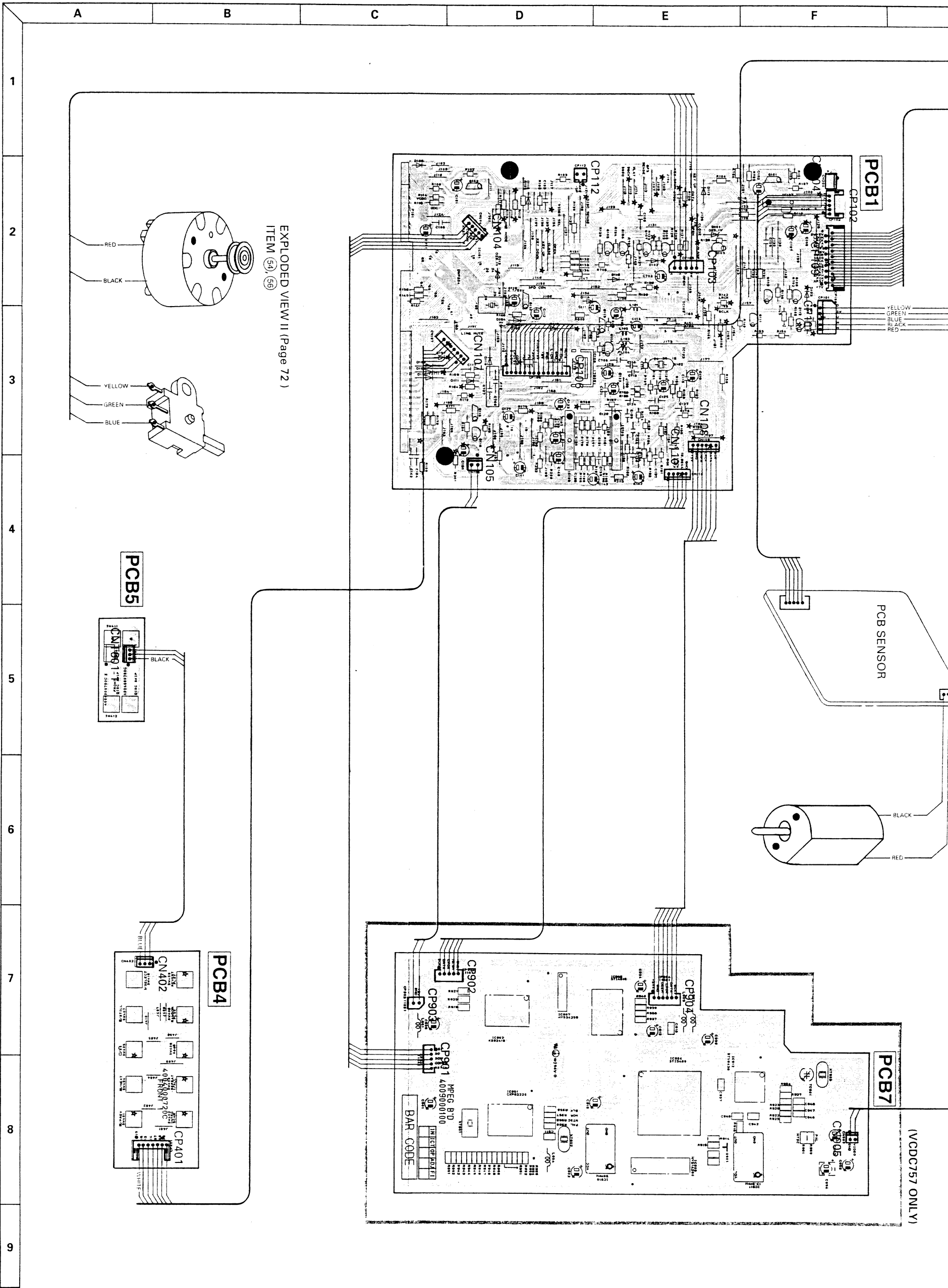


PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICs.

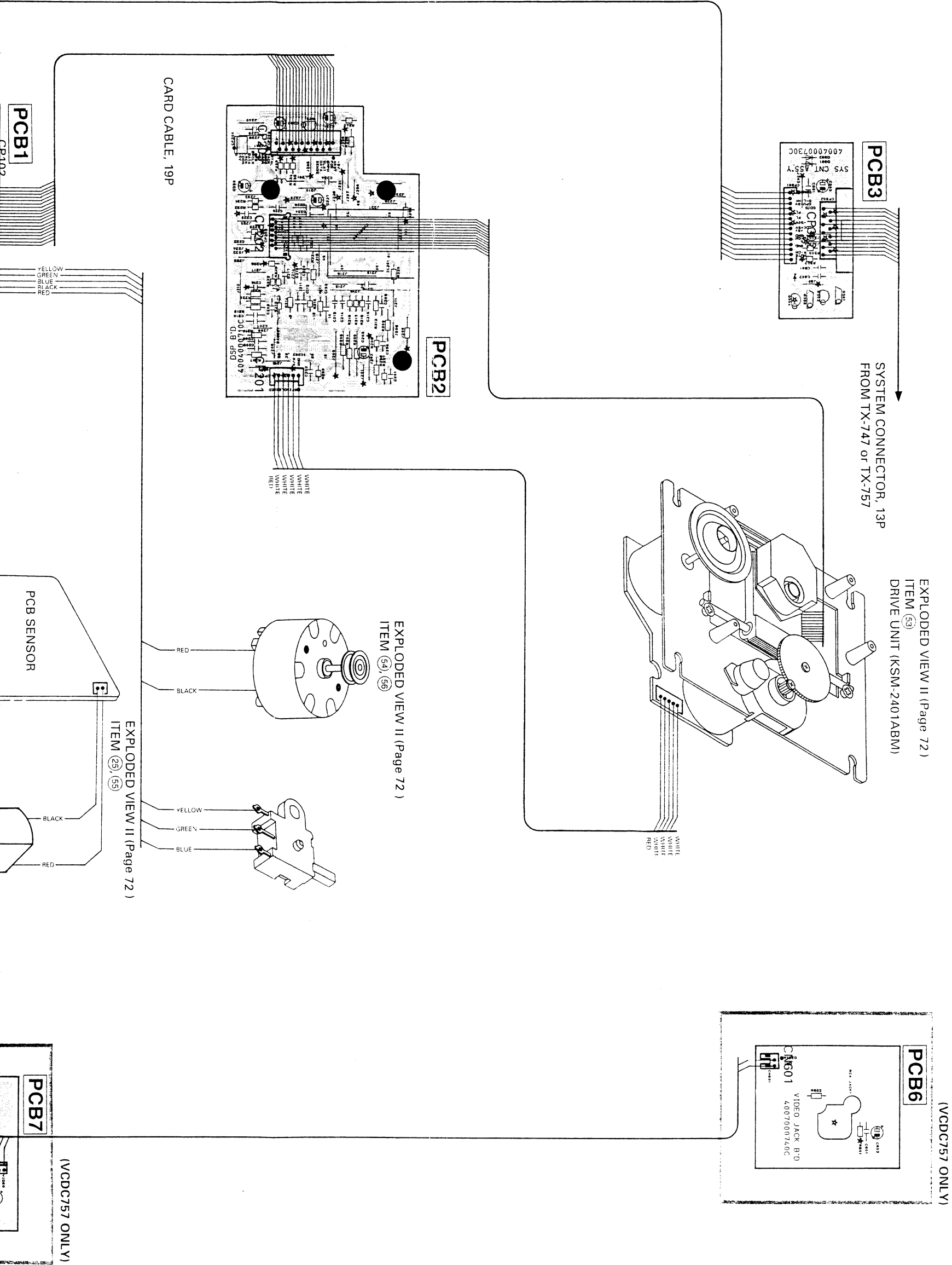
<p>ZENER IN4148</p> 	<p>DTA114YS DTC114YS DTC323TS</p> 	<p>KA7805</p> 	<p>KTD1302/2SD1302 KTC3198/KTC1815 KTA1266/KTA1015Y</p> 	<p>KTA966A/KTA1273</p> 	<p>TA7291S KIA4559S/KIA7559S</p> 	<p>SM5874AM CXA1645N-76 CDVS110</p> 	<p>GD74MC157 NJM4052BCF</p> 
---	---	--	---	--	--	---	---



WIRING DIAGRAM



	G	H	I	J	K	L
--	---	---	---	---	---	---



▪ DD-757 ▪

SPECIFICATIONS

Track Configuration

The 4-track, 2-channels and a rotary reverse type head stereo cassette deck motors

1-Electronic governor

1-High torque DC motor (Reel)

Mechanism

1-Motor, 1-Solenoid mechanism

Heads

Rec/Playback head

Hard permalloy

Eraser head

Double gap ferrite

Tape Speed 1-7/8 IPS (4.76 cm/sec) (FWD/REV)

$\pm 1.0/\pm 1.0\%$

Wow/Flutter (CCIR Unweighted)

No more than 0.35%

Fast Winding Time (C-60)

About 120 sec

Input Sensitivity Impedance

REC IN

400 mV/51 k Ω

Output Level/Load Impedance

PLAY OUT

400 mV/1.5 k Ω

Signal to Noise Ratio (W.CCIR/ARM)

CrO₂ Tape with Dolby B/C NR

More than 66/76 dB

CrO₂ Tape without Dolby B/C NR

More than 56 dB

Frequency Response (-20 dB REC Dolby NR off)

Normal Tape

20 Hz - 17.5 kHz, ± 3 dB

CrO₂ Tape

20 Hz - 17.5 kHz, ± 3 dB

Metal Tape

20 Hz - 17.5 kHz, ± 3 dB

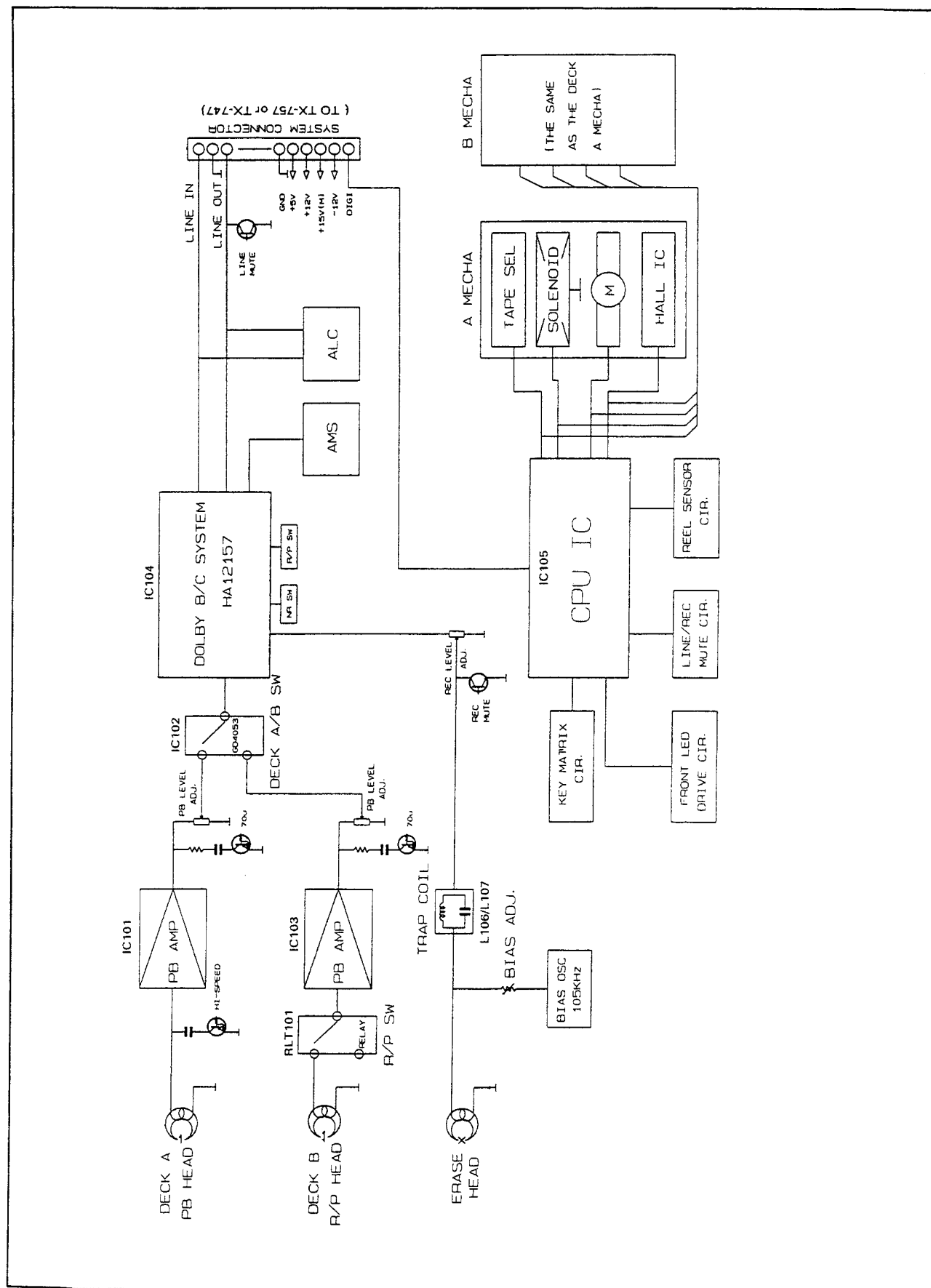
Total Harmonic Distortion (3rd, 333 Hz, 0 dB, Normal Tape)

No more than 1.0%

Channel Separation

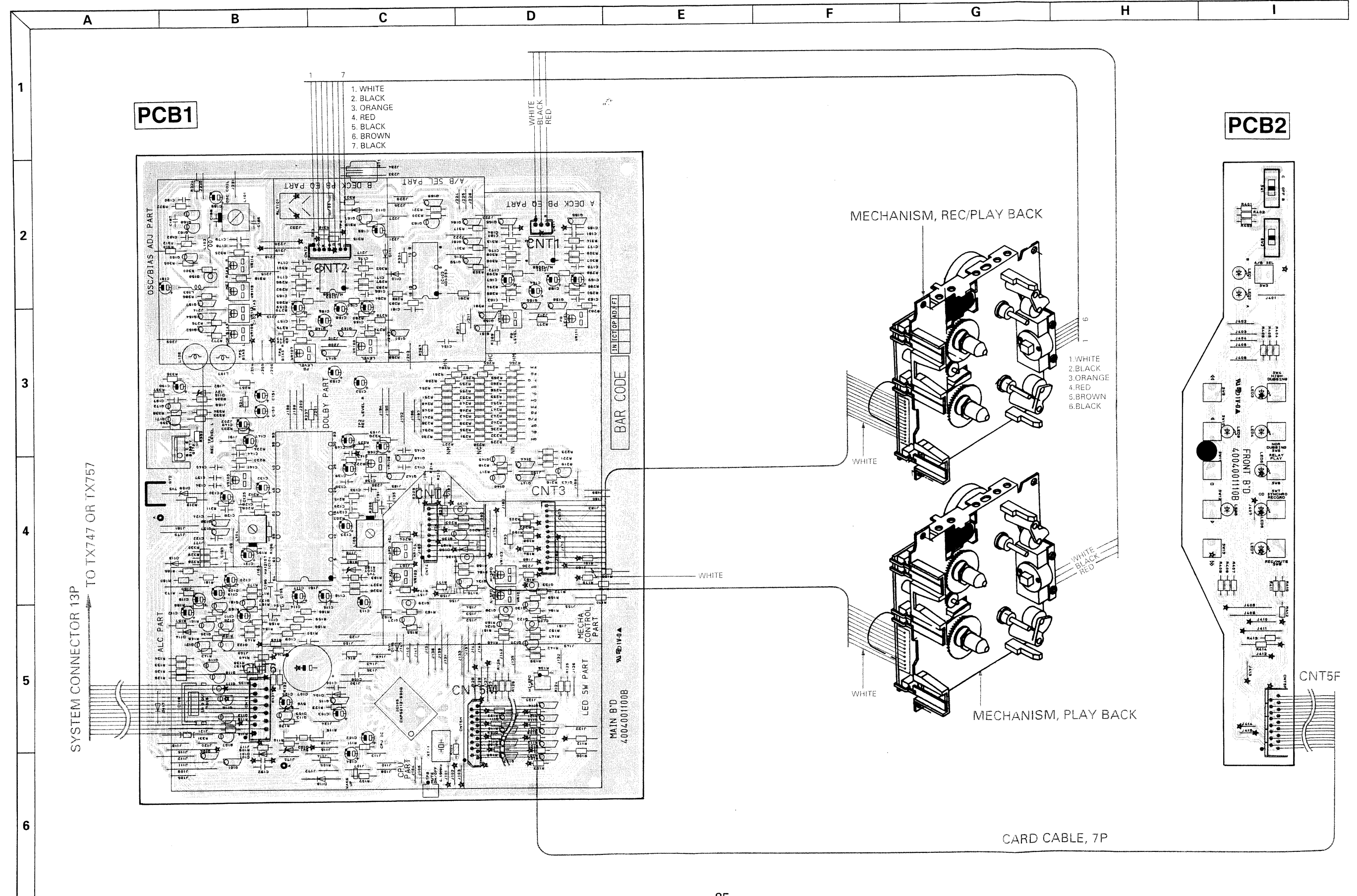
No more than 38 dB

Model No. : DD-757



WIRING DIAGRAM

Model No. : DD-757



DISASSEMBLY PROCEDURES

REFER TO PAGES 85 AND 95.

1 COVER TOP REMOVAL

Remove 6 screws **a** and then remove the Cover Top **39**.

2 FRONT PANEL ASSEMBLY REMOVAL

1. Remove the Cover Top **39**, referring to the previous step **1**.
2. Remove the card cable from wafer (CNT5M) on the Main P.C.Board (PCB1).
3. Disconnect (CNT1, CNT2, CNT3 and CNT4) from Main P.C.Board (PCB1).
4. Remove 7 screws **b** and then remove the Front Panel Assembly **AA**.

3 MECHANISM ASSEMBLY REMOVAL

1. Remove the Cover Top **39**, referring to the previous step **1**.
2. Remove the Front Panel Assembly **AA**, referring to the previous step **2**.
3. Remove Base Door **7** and **8** by pressing the hooks of both sides and pulling it toward you gently.
4. Remove 8 screws **c** and then remove the Mechanism **25** and **26**.
5. Remove the Lid Cassette **9** right and left.
6. Remove 4 screws **d** and then remove the Guide Door **19**.

4 FRONT P.C.BOARD (PCB2) REMOVAL

1. Remove the Cover Top **39**, referring to the previous step **1**.
2. Do steps **2** and **3**.
3. Remove 2 screws **e** and then remove the Front P.C.Board (PCB2).

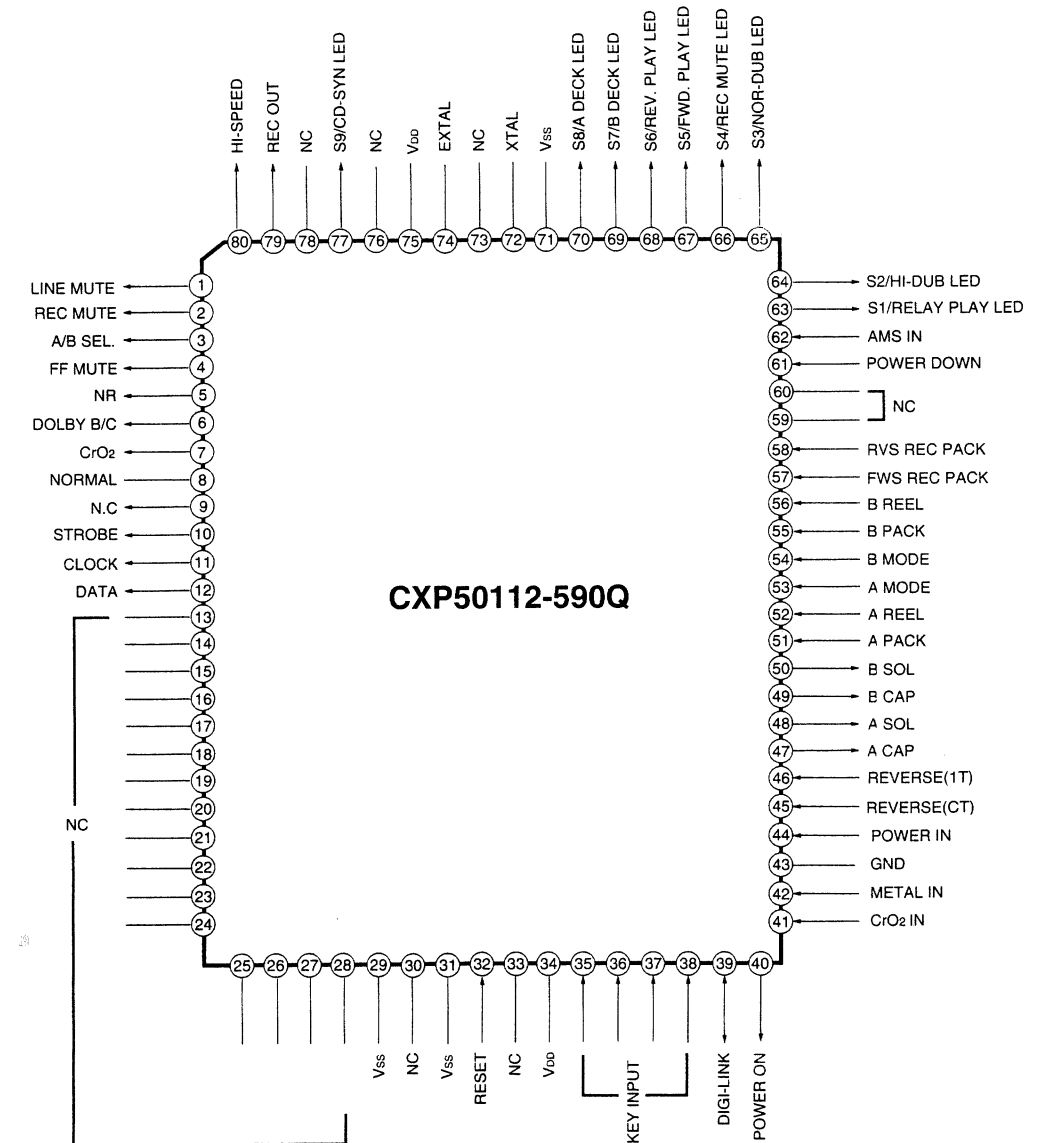
5 MAIN P.C.BOARD (PCB1) REMOVAL

1. Remove the Cover Top **39**, referring to the previous step **1**.
2. Remove the card cable from wafer (CNT5M) on the Main P.C.Board (PCB1).
3. Disconnect (CNT1, CNT2, CNT3, CNT4 and CNT6) from the Main P.C.Board (PCB1).
4. Remove 2 screws **f** and then Main P.C.Board (PCB1).

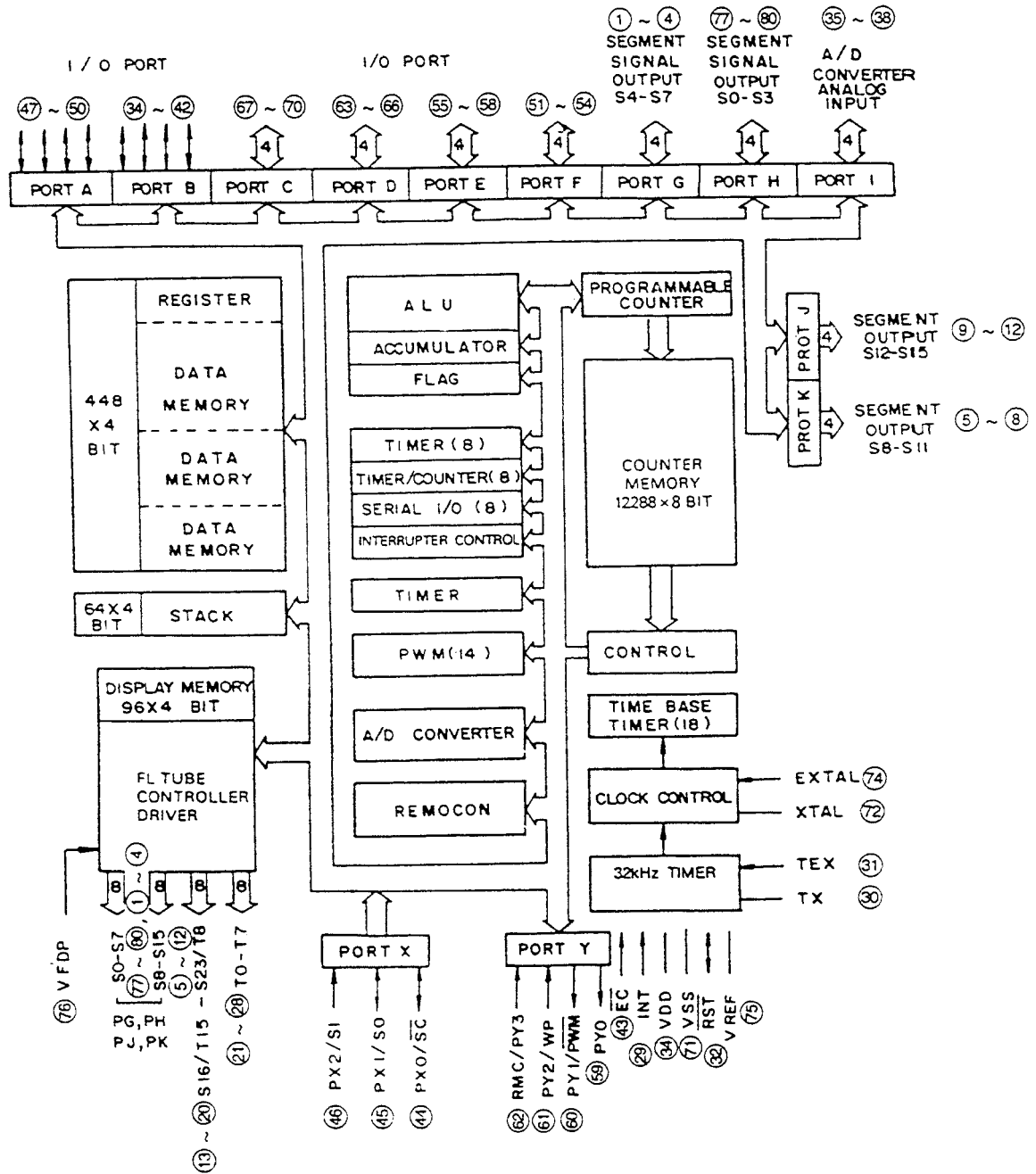
CIRCUIT DESCRIPTION

CPU(IC105):CXP50112-590Q

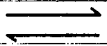
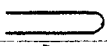
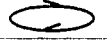
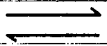
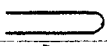
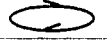
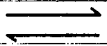
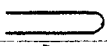
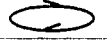
1. Pin Description



2. Block Diagram



3. Input and Output Terminal Function

Pin No.	Symbol	Description												
1	LINE MUTE	Output for muting the line output. Except play or recording (dubbing), output is "H".												
2	REC MUTE	Output for muting recording output. (If recording, then "L")												
3	A/B SEL.	Output for controlling to select Deck A or B. (If Deck B, then "H")												
4	FF MUTE	Output for muting line output during FF or REW. (If FF or REW, then "H")												
5	NR	Output for controlling the noise reduction. (If the NR mode, then "H")												
6	B/C	Output for controlling the DOLBY B/C. (If the DOLBY B, then "H")												
7	C _R O ₂	Output for checking a C _R O ₂ mode on Deck B. (If C _R O ₂ tape, then "H".)												
8	NORMAL	Output for checking a Nor. mode on Deck B. (If Nor. tape, then "H".)												
9	NC	Not Used !												
10	STROBE	Strobe output to IC104 (HA12157).												
11	CLK	Clock output to IC104 (HA12157).												
12	DATA	Data output to IC104 (HA12157).												
13 ~ 28	NC	Not Used !												
29	Vss	This pin provides the ground potential.												
30	NC	Not Used !												
31	Vss	This pin provides the ground potential.												
32	RESET	Input for the resetting system.												
33	NC	Not Used !												
34	Vdd	+5 V power supply for CPU (IC105).												
35 ~ 38	KEY INPUT	Data input for key scan.												
39	DIGI-LINK	Input/Output for controlling DIGI-LINK.												
40	POWER ON	Output for power on. (If power on, then "H")												
41	CrO ₂ IN	Input for checking a C _R O ₂ tape on Deck B. (If C _R O ₂ tape, then "H")												
42	METAL IN	Input for checking a metal tape on Deck B. (If metal tape, then "H")												
43	GND	Ground												
44	POWER IN	Input for power on for itself. (If power on itself, then "L")												
45/46	REVERSE CT/1T	According to reverse mode switch setting, input for selecting the desired reverse mode. <table border="1"> <thead> <tr> <th>Reverse mode</th><th>Reverse CT</th><th>Reverse 1T</th></tr> </thead> <tbody> <tr> <td></td><td>L</td><td>H</td></tr> <tr> <td></td><td>H</td><td>L</td></tr> <tr> <td></td><td>H</td><td>H</td></tr> </tbody> </table>	Reverse mode	Reverse CT	Reverse 1T		L	H		H	L		H	H
Reverse mode	Reverse CT	Reverse 1T												
	L	H												
	H	L												
	H	H												
47	A CAP.	Output for driving the capstan of Deck A.												
48	A SOL.	Output for driving the solenoid of Deck A.												
49	B CAP.	Output for driving the capstan of Deck B												
50	B. SOL.	Output for driving the solenoid of Deck B												
51	A PACK	Input for checking a tape on Deck A. (If there's a tape, then "L")												
52	A REEL	Input for detecting the reel pulse from Deck A.												
53	A MODE	Input for detecting the play state on Deck A.												
54	B MODE	Input for detecting the play state on Deck B.												
55	B PACK	Input for checking a tape on Deck B. (If there's a tape, then "L")												
56	B REEL	Input for detecting the reel pulse from Deck B.												
57	FWD REC PACK	Input for checking the forward tap of tape. (If there's the tape, then "L")												
58	RVS REC PACK	Input for checking the reverse tap of tape. (If there's the tape, then "L")												
59/60	NC	Not Used !												

Pin No.	Symbol	Description
61	POWER DOWN	Input for checking the power down. (If power down, then "L")
62	AMS IN	Input for checking the blank space during AMS (Automatic Music Searching) (If on the blank space, then "H").
63	S1 RL-PLAY	Output for lighting on the LED at relay play mode. (If relay play, then "H")
64	S2 HI-DUB	Output for lighting on the LED at high dubbing mode. (If high dubbing, then "H").
65	S3 NOR-DUB	Output for lighting on the LED at normal dubbing mode. (If normal dubbing, then "H").
66	S4 REC MUTE	Output for lighting on the LED at recoding mute mode. (If recording must, then "H").
67	S5 FWD PLAY	Output for lighting on the LED at forward play mode. (If forward play, then "H")
68	S6 REV PLAY	Output for lighting on the LED at reverse play mode. (If reverse play, then "H")
69	S7 B DECK	Output for lighting on the LED at deck B mode. (If deck B play, then "H")
70	S8 A DECK	Output for lighting on the LED at deck A mode. (If deck A play, then "H")
71	Vss	This pin provides the ground potential.
72	XTAL	Output for crystal oscillator.
73	NC	Not Used !
74	EXTAL	Input for crystal oscillator.
75	Vdd	+5 V power supply for CPU (IC105).
76	NC	Not Used !
77	S9 CD-SYN LED	Output for lighting on the LED at CD synchro mode. (If CD synchro, then "L")
78	NC	Not Used !
79	REC OUT	Output for controlling the record.
80	HI-SPEED	Output for controlling the tape speed. (If hi-speed, then "H")

Adjustment and Test Points (PCB2)



Before Measurements and Adjustments

The following general conditions apply to the electrical measurements and adjustments unless especially stated otherwise.

- Dolby NR switch off.
- Use 400mV(200 nwb/m) for 0 dB as the standard level of the unit.

1. Test tape

- TCC-155 Azimuth (14kHz, -24 dB)
- TCC-114 Tape speed (3.15 kHz, -10 dB)
- TCC-130 Playback level (Dolby NR ref. tape 400 Hz, 0 dB)
- TCC-185C Playback frequency response

- Reference Blank Tape.

- Normal TDK AC-224
- CrO₂ TDK AC-513
- Metal TDK AC-712

2. Instruments required

- Audio frequency oscillator
- ACVM or dual channel mV-meter
- Wow/Flutter meter
- Oscilloscope

Playback Section

Adjustments	Test tape	Mode	Apply Signal to	Measure on	Read on	Adjust with	Adjust to	
Head Azimuth	TCC-155 14 kHz (A.BEX)	FWD Play (A & B Deck)		Line output	AC mV-meter Oscilloscope	Adjusting a right screw of head	Max • Lissajous wave from become a straight , line with an angle 45 deegrees	
		Adjusting a left screw of head						
Playback at normal speed	TCC-114 3.15 kHz -10 dB(A. Bex)	Play (A & B Deck)			Wow and Flutter Meter	A Deck VR102 & B Deck VR101	3150 Hz ± 30 Hz	
Playback at hi-speed (TP7 short)	TCC-114 3.15 kHz -10 dB(A.Bex)					A Deck VR104 & B Deck VR103	4725 Hz ± 45 Hz	
Playback Level	TCC-130 400 Hz, 0 dB(A. Bex)				A Deck VR110,111	400 mV		
					B Deck VR107,VR108	400 mV		
Playback Frequency Response	TCC-185C 12.5 kHz, 1 kHz, 60 Hz (A. Bex)					AC mV-meter		See graph Fig. 2 freq. response

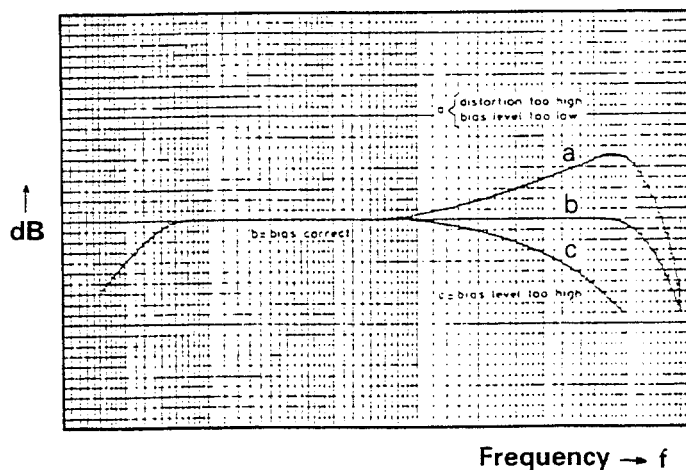
Recording Section

Adjustments	Test tape	Mode	Apply Signal to	Measure on	Read on	Adjust with	Adjust to
Bias OSC Frequency	AC-712(TDK)	Rec/Pause		TP5	Frequency Counter	L101	105 kHz ± 400 Hz

Adjustments	Test tape	Mode	Apply Signal to	Measure on	Read on	Adjust with	Adjust to
Target Value Bias	Metal, AC-712			TP5, TP6		VR113, VR114	AC 10.9 V
	CrO2, AC-513					VR112	AC 6.8 V
	Normal, AC-224					VR109	AC 6 V
Recording Level	AC-712 (TDK)		400 Hz, 80 mV to Line in	TP1, TP2		VR105, VR106	About 6.7mV
Bias	AC-712 AC-513 AC-224 (TDK)	Rec/Pause	400 Hz to Line	Line out	AC mV-meter	See Target Value Bias	If necessary repeat bias adjustment See graph fig. 1
			4 kHz - 6.3 kHz 10 kHz - 12 kHz 14 kHz - 16 kHz to Line in	Recording number of frequency with the same input voltage and play them back.			
19kHz Suppression	Arbitrary Tape	Rec/Pause	19 kHz to Line	Line out	AC mV-meter	LF Generator	100mV
				Line out	AC mV-meter Oscilloscope	L104/105	Minimize the reading on ACVM.

Note:

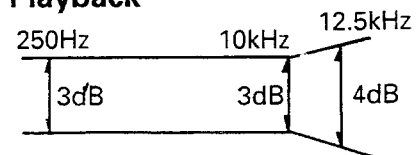
- *a. Prior to any measurement or adjustment with the tape running, heads and tape guides should be degaussed and cleaned. Reference below the figure.
- *b. The maximum permissible speed variation $\pm 1.0\%$. Moreover the Wow and Flutter can be read. This value on line out should exceed 0.2%.
- *c. The voltage on line out should be 400 mV \pm 20 mV. If not, it reduce the LF signal (bias disabled) as many as the reading was too low or too high by VR107/108, VR110/111.
- *d. When the channel is adjusted, this may slightly affect the adjustment of the other channel. If the adjustment is correct, the frequency response curve will be similar to curve b in figure 1, distortion below 3%.



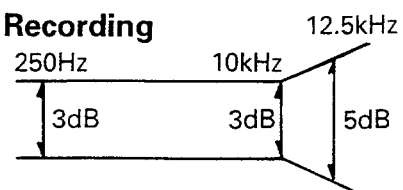
REC Bias & THD Graph

Fig. 1

Playback



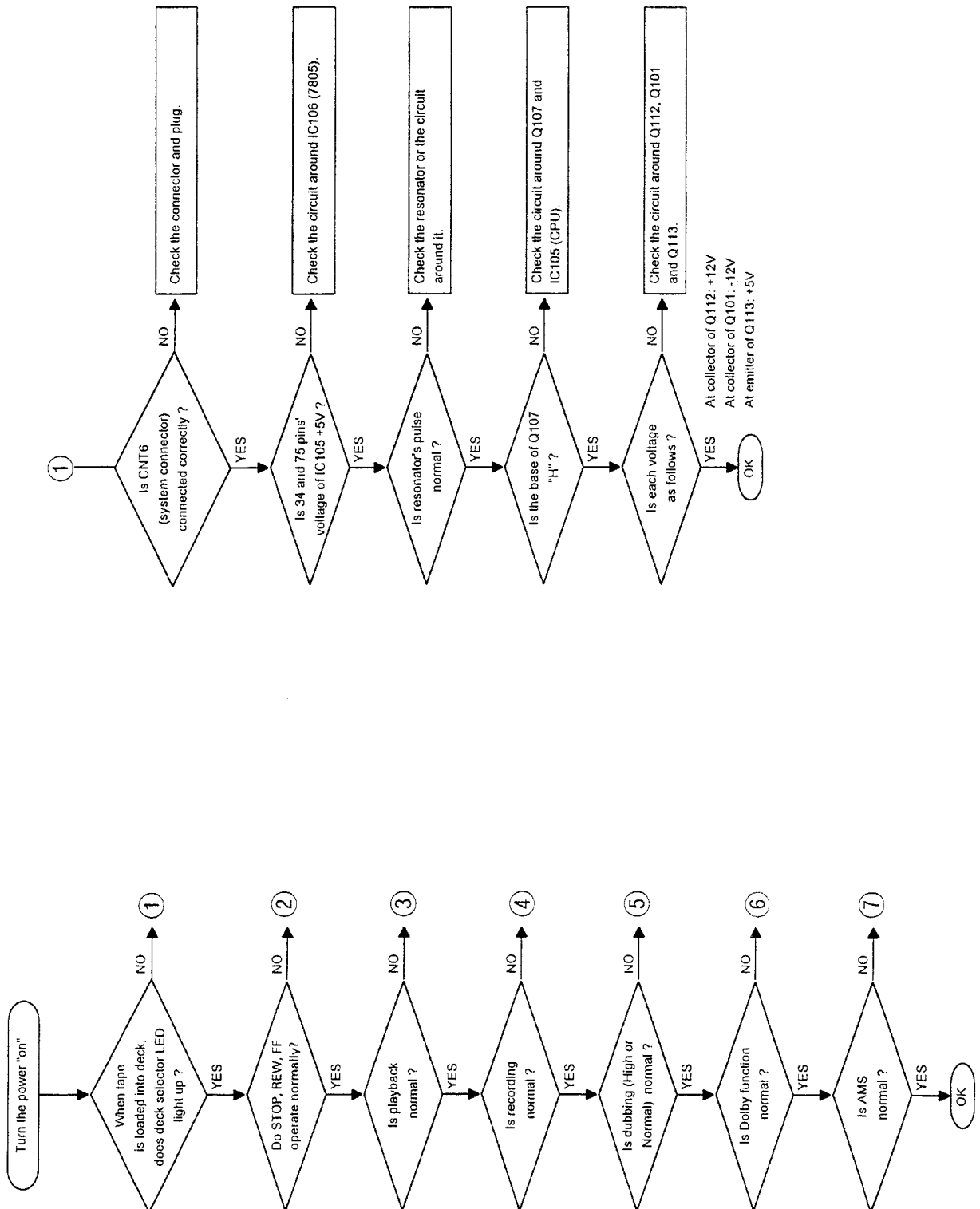
Recording

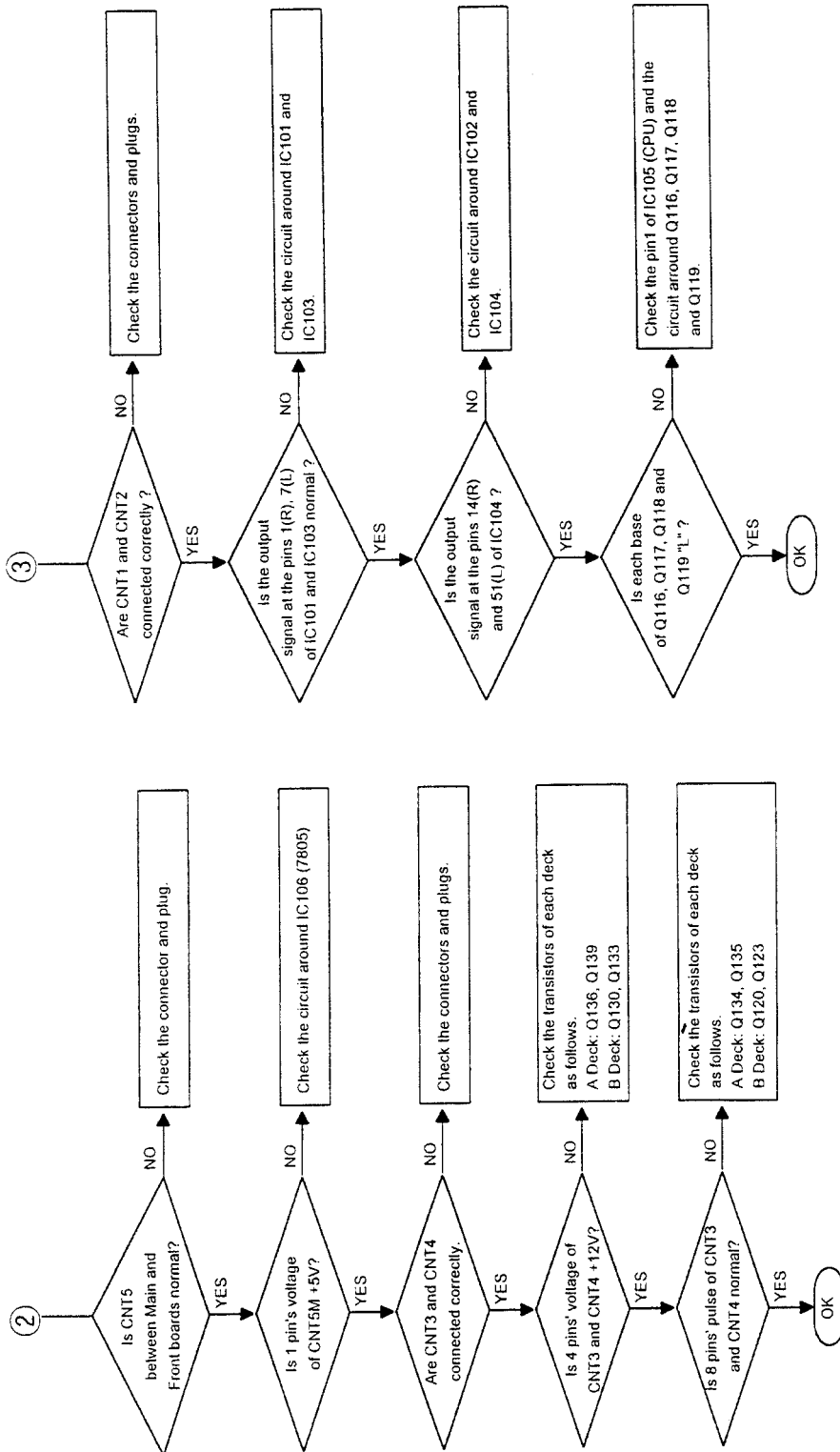


Allowable Playback/Recording Frequency Response Zone

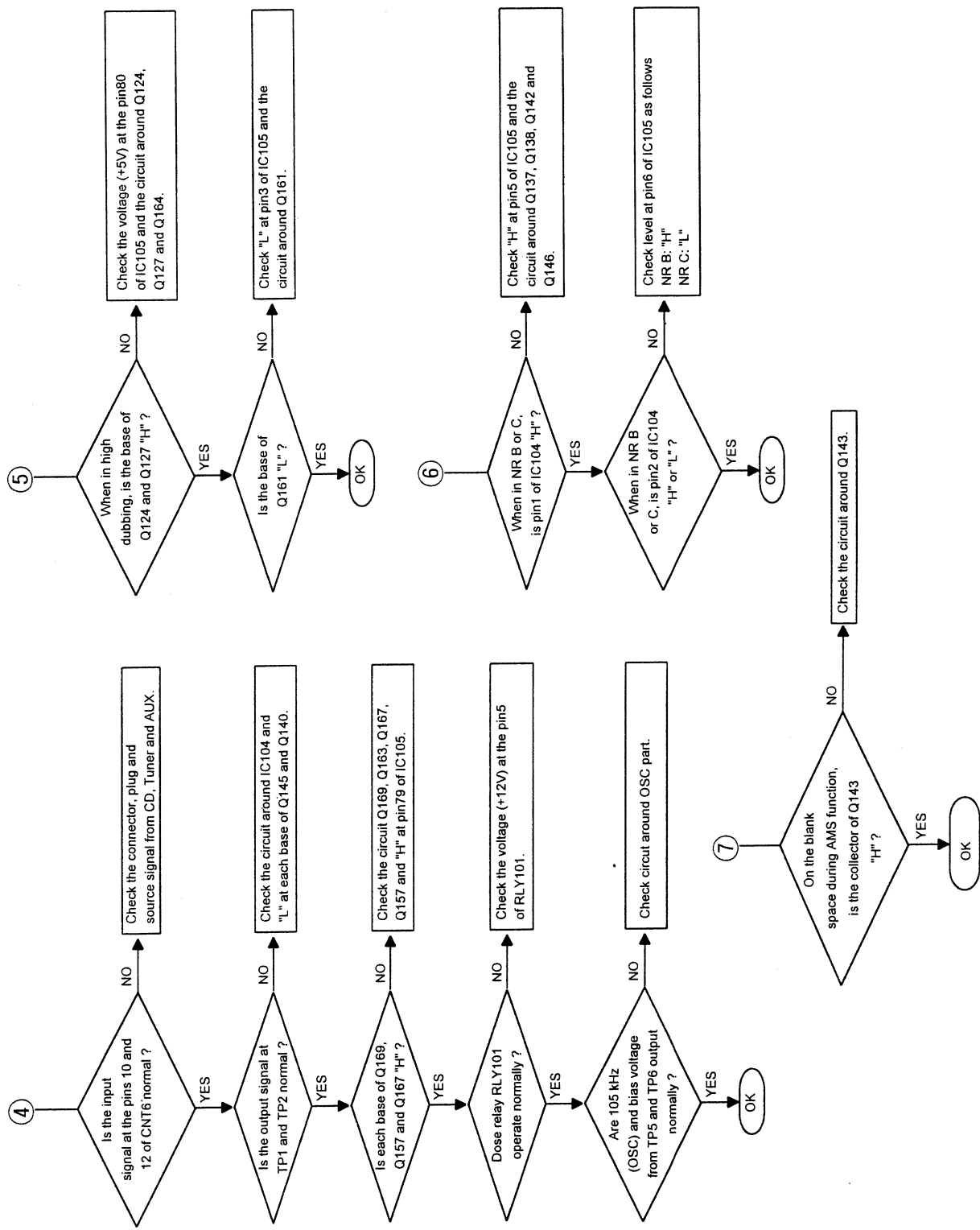
Fig. 2

TROUBLESHOOTING





MECHANICAL PARTS LIST



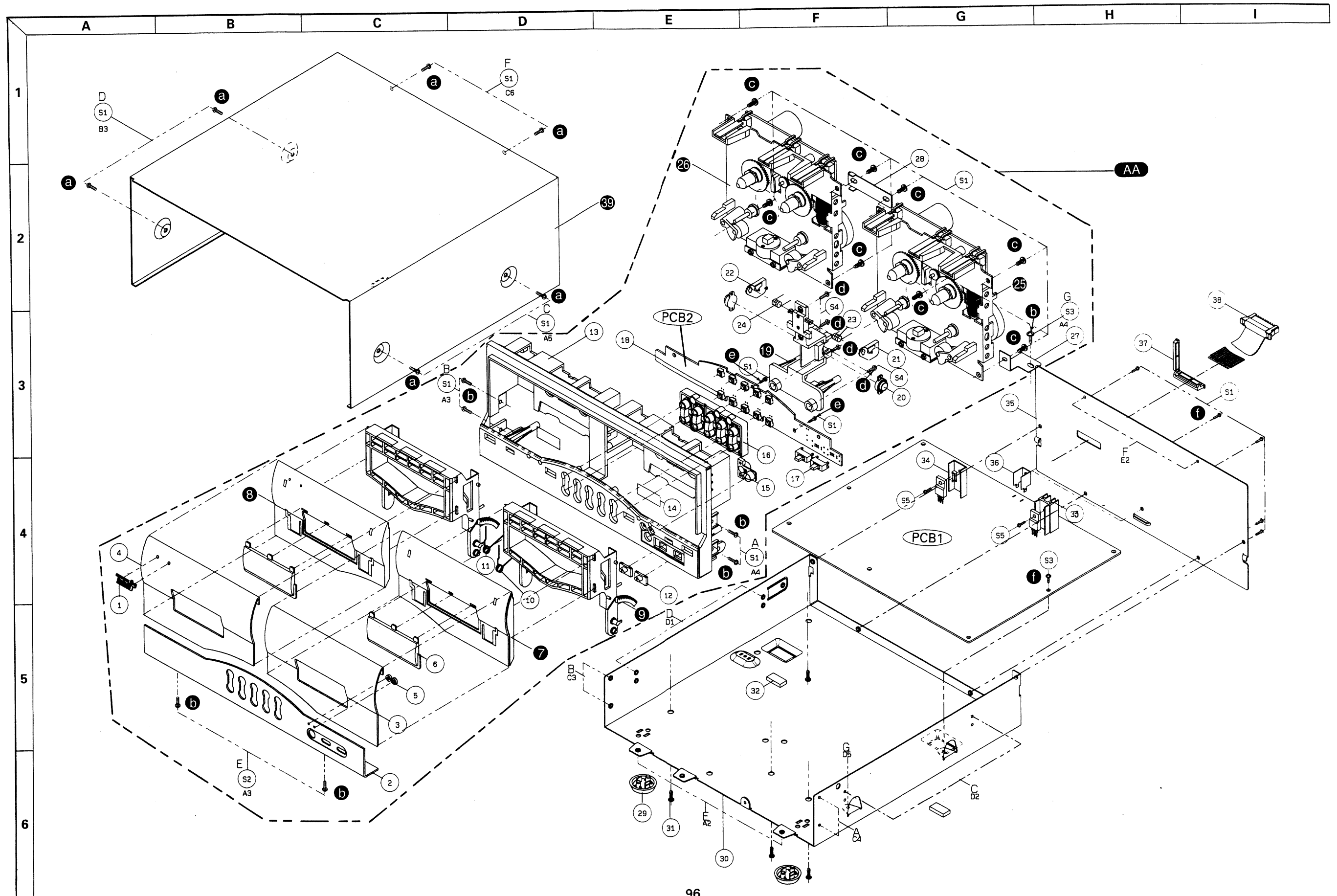
Ref. No.	Description	Parts No.	Q'ty	Version
PACKAGE				
	Carton Box	049605258203	1	KS
	Carton Box	049605258204	1	A,D,PT INDO
	Cushion Poly	9722041210	1	
	Film Soft PE	9715000120	1	
CABINET & CHASSIS				
1	Badge, INKEL	048535045411	1	KS
(1)	Badge, SHERWOOD	048535045421	1	A,D,PT INDO
2	Panel Front	048602020011	1	
3	Door, Right	048663001511	1	
4	Door, Left	048663001521	1	
5	Indicator LED	8555052610	2	
6	Window Door	048555052711	2	
7	Base Door, Right	046512001911	1	
8	Base Door, Left	046512001921	1	
9	Lid Cassette	8562006610	1	
10	Door Spring	6555610210	1	
11	Door Spring	6555610220	1	
12	Knob Slide	048545131611	2	
13	Body Front	048521009611	1	
14	Label Mirror	9057095396	2	
15	Button Selector	048545131211	1	
16	Button Function	048543070212	1	
17	Switch Slide	4618008310	2	
18(SW3-13)	Switch Tact	4658004410	11	
19	Guide Door	8523013410	1	
20	Damper Oil	6308002310	2	
21	Lever Eject, Right	7143104220	1	
22	Lever Eject, Left	7143104210	1	
23	Spring Lever "A"	6555013510	1	
24	Spring Lever "B"	6555013520	1	
25	Deck Mecha, R/P	5708015110	1	
26	Deck Mecha, CMAL2Z035A	5708014710	1	
27	Bracket Shield	6165151310	1	
28	Bracket Shield	6165151210	1	
29	Foot	6035104310	2	
30	Chassis Main	6121614920	1	
31	Fastener	6528301710	4	
32	Cushion Foot	6715021230	1	
33	Heatsink	7505202410	1	
34	Heatsink	7505202410	1	
35	Chassis Back	046102044611	1	KS
(35)	Chassis Back	046102044613	1	PT INDO
(35)	Chassis Back	046102044612	1	D
(35)	Chassis Back		1	A
36	Plate Ground	6165143510	1	
37	Stopper Connector	6518002210	1	
38	Connector, System, 13P	4358613501	1	
39	Cover Top	046123017821	1	
HARDWARE KIT				
S1	Screw, #2BTT 3x8B	8179130083	25	
S2	Screw, #2FTC 3x8B	8129230083	2	
S3	Screw, #2WPTT 3x6Y	8159230061	2	
S4	Screw, #2BTC 3x10B	8109230103	4	
S5	Screw, #2BTC 3x6B	8109230063	2	
MISCELLANEOUS				
	Connector, Lead Ass'y, 3P, 220mm, Shield	436203227032	1	
	Connector, Lead Ass'y, 10P, 200mm	436210200532	1	
	Connector, Lead Ass'y, 7P, 200mm, Shield	435207208002	1	
	Connector, Lead Ass'y, 13P, 200mm	436213200532	1	
	Card Cable, YS=1.25-17-180-C	4118617185	1	
PCB1	P.C.Board Main	4004001100	1	
PCB2	P.C.Board Front	4004001110	1	

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list are of special significance to safety. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

EXPLODED VIEW

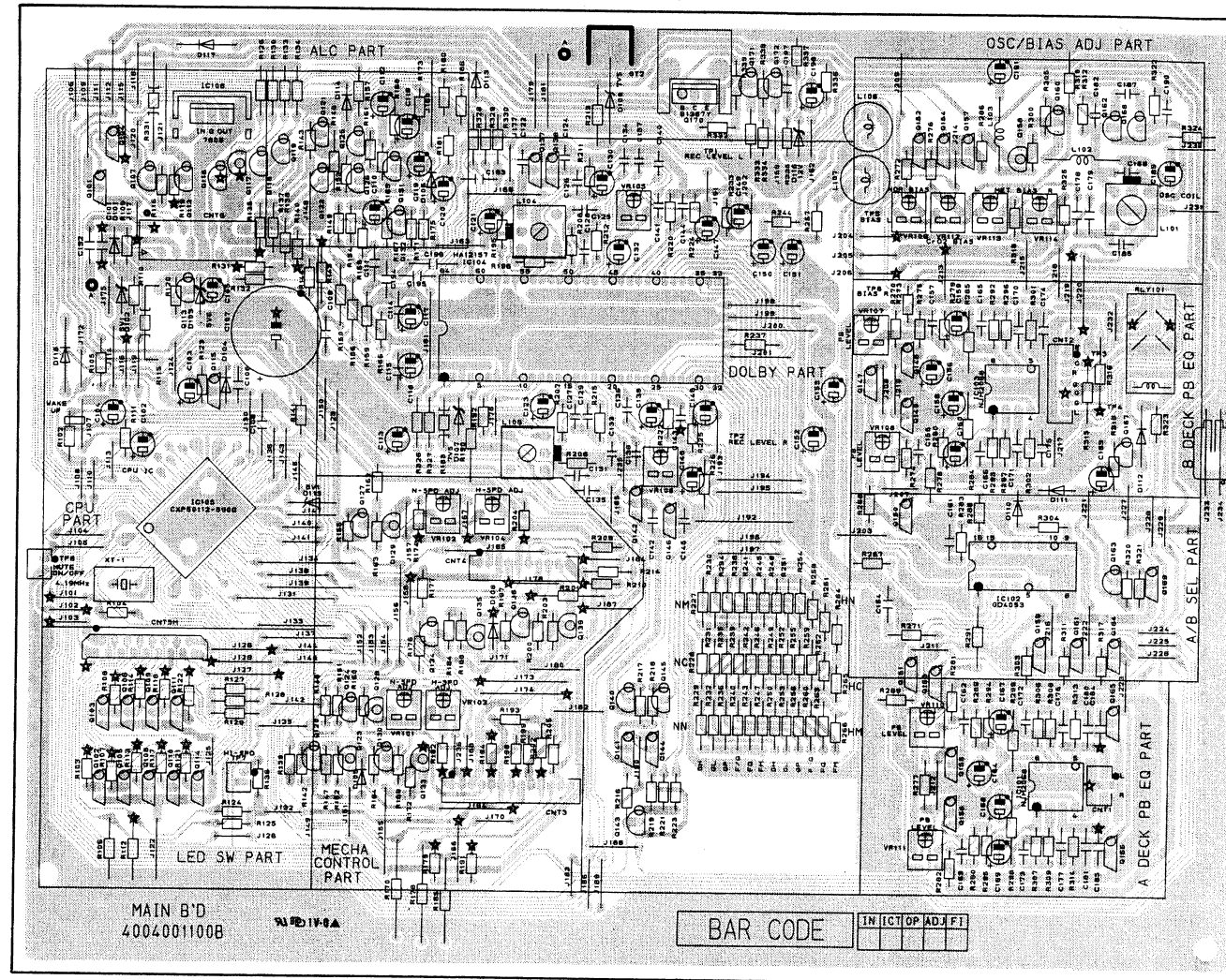
Model No. : DD-757



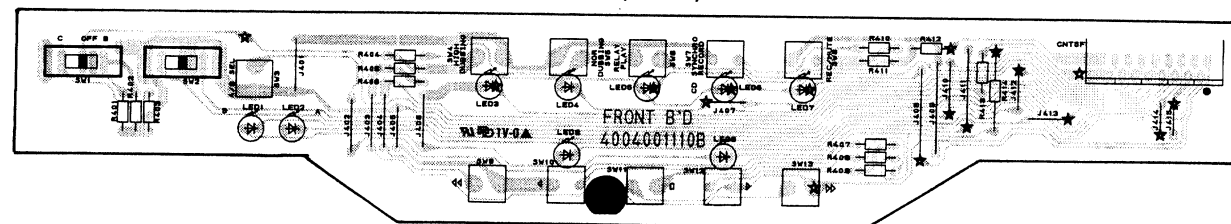
PRINTED CIRCUIT BOARDS

Model No. : DD-757

MAIN(PCB2)



FRONT(PCB1)



ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTICE : Products marked with Δ have special characteristics important to safety.

If you replace any of these components, read carefully the product safety notice in this manual.

Don't degrade the safety of the product through improper servicing.

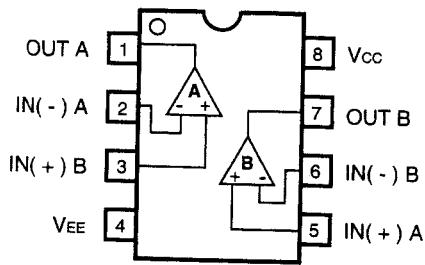
Resistor/Capacitor tolerance - D : ($\pm 0.5\%$), J : ($\pm 5\%$), K : ($\pm 10\%$), M : ($\pm 20\%$), Z : +80, - 20%)

Ref. No.	Description	Parts No.	Q'ty	Version	Ref. No.	Description	Parts No.	Q'ty	Version				
PCB1	ASSEMBLY P.C. BOARD MAIN												
CAPACITORS					C195/C196	Ceramic Tubular	100	pF	50 V J	3519101935	2		
C101	Ceramic Tubular	220	pF	50 V J	3519221935	1	C197	Ceramic Tubular	470	pF	50 V J	3519471935	1
C102	Electrolytic SG	1	uF	50 V M	3479310971	1	C198	Electrolytic SG	10	uF	50 V M	3479310071	1
C103	Electrolytic SG	4.7	uF	50 V M	3479347971	1	CONNECTORS						
C104/C105	Electrolytic SG	10	uF	50 V M	3479310071	2	CNT1	Wafer, 3P			4428516210	1	
C106	Ceramic Tubular	0.1	uF	50 V Z	3519104935	1	CNT2	Wafer, 7P			4428516610	1	
C107	Electrolytic SG	2200	uF	25 V M	3409322249	1	CNT3	Wafer, 13P			4428517210	1	
C108/C109	Ceramic Tubular	0.1	uF	50 V Z	3519104935	2	CNT4	Wafer, 10P			4428516910	1	
C110	Electrolytic SG	1	uF	50 V M	3479310971	1	CNT5M	Wafer, FFC, 17P			4428509015	1	
C111	Ceramic Tubular	0.1	uF	50 V Z	3519104935	1	CNT6	Wafer, 13P			4428513800	1	
C112	Electrolytic SG	220	uF	10 V M	3479322121	1	DIODES						
C113	Electrolytic SG	100	uF	16 V M	3479310131	1	D101	1N4148, Switching			2058322101	1	
C114/C115	Ceramic Tubular	270	pF	50 V J	3519271935	2	D102	Zener, UZ 5.1 BSB			2258599103	1	
C116-C118	Electrolytic SG	2.2	uF	50 V M	3479322971	3	D103	Zener, UZ 5.6 BSB			2258599104	1	
C119	Electrolytic SG	0.1	uF	50 V M	3479310871	1	D104-D106	1N4148, Switching			2058322101	3	
C120	Electrolytic SG	10	uF	50 V M	3479310071	1	D107	Zener, UZ 7.5 BSC			2258599130	1	
C121	Electrolytic SG	100	uF	16 V M	3479310131	1	D108	1N4148, Switching			2058322101	1	
C122	Mylar	0.001	uF	100 V J	3519102120	1	D109	Zener, UZ 7.5 BSC			2258599130	1	
C123	Electrolytic SG	10	uF	50 V M	3479310071	1	D110/D111	1N4148, Switching			2058322101	2	
C124	Mylar	0.001	uF	100 V J	3519102120	1	D112	1N4003, Rectifier			2258128002	1	
C125	Mylar	0.0022	uF	100 V J	3679222120	1	D113/D114	1N4148, Switching			2058322101	2	
C126	Mylar	0.0047	uF	100 V J	3679472120	1	D115	Zener, UZ 5.1 BSB			2258599103	1	
C127-C129	Mylar	0.0022	uF	100 V J	3679222120	3	D116	Zener, UZ 12.0 BSC			2258599116	1	
C130	Electrolytic SG	10	uF	50 V M	3479310071	1	D117/D118	1N4003, Rectifier			2258128002	2	
C131	Mylar	0.0047	uF	100 V J	3679472120	1	INTEGRATED CIRCUITS						
C132	Electrolytic SG	10	uF	50 V M	3479310071	1	IC101	NJM2068D			2168020106	1	
C133/C134	Mylar	0.0022	uF	100 V J	3679222120	2	IC102	GD4053			2138001117	1	
C135-C138	Mylar	0.1	uF	63 V K	3679104297	4	IC103	NJM2068D			2168020106	1	
C139	Electrolytic SG	10	uF	50 V M	3479310071	1	IC104	HA12157			2168011135	1	
C140/C141	Mylar	0.1	uF	63 V K	3679104297	2	IC105	CXP50112-590Q			2139322702	1	
C142	Mylar	0.001	uF	100 V J	3519102120	1	IC106	KIA7805P, Regulator			2168606103	1	
C143/C144	Mylar	0.022	uF	100 V J	3679223120	2	COILS						
C145	Mylar	0.001	uF	100 V J	3519102120	1	L101	OSC Bias, CQN-K5174			2638601350	1	
C146	Electrolytic SG	1	uF	50 V M	3479310971	1	L102/L103	Inductor, 10 uH			2648610082	2	
C147/C148	Electrolytic SG	10	uF	50 V M	3479310071	2	L104/L105	Filter, MPX, FB-10D			2658301120	2	
C149	Electrolytic SG	1	uF	50 V M	3479310971	1	L106/L107	Trap Bias, 389AC-K5049			2658501150	2	
C150/C151	Electrolytic SG	10	uF	50 V M	3479310071	2	TRANSISTORS						
C152/C153	Electrolytic SG	1	uF	50 V M	3479310971	2	Q101	DTC114YS			2208622106	1	
C154	Ceramic Tubular	220	pF	50 V J	3519221935	1	Q102/Q103	DTC114TS			2208622108	2	
C155	Mylar	0.022	uF	100 V J	3679223120	1	Q104	KRA107M/DTA114YS			2238006103	1	
C156	Electrolytic SG	47	uF	16 V M	3479347031	1	Q105/Q106	DTC114TS			2208622108	2	
C157	Mylar	0.022	uF	100 V J	3679223120	1	Q107	KTC3198Y, NPN			2208606105	1	
C158	Electrolytic SG	47	uF	16 V M	3479347031	1	Q108-Q111	DTC114TS			2208622108	3	
C159/C160	Electrolytic SG	4.7	uF	50 V M	3479347971	2	Q112	MPSA56, PNP			2208206113	1	
C161	Ceramic Tubular	220	pF	50 V J	3519221935	1	Q113	MPSA06Y, NPN			2208606114	1	
C162/C163	Mylar	0.022	uF	100 V J	3679223120	2	Q114	DTC114TS			2208622108	1	
C164	Electrolytic SG	47	uF	16 V M	3479347031	1	Q115	DTC114YS			2208622106	1	
C165/C166	Mylar	0.022	uF	100 V J	3679223120	2	Q116-Q119	KTD1302, NPN			2208606112	4	
C167	Electrolytic SG	4.7	uF	50 V M	3479347971	1	Q120-Q122	KTC3198Y, NPN			2208606105	3	
C168	Electrolytic SG	47	uF	16 V M	3479347031	1	Q123	MPSA56, PNP			2208206113	1	
C169	Electrolytic SG	4.7	uF	50 V M	3479347971	1	Q124-Q127	KTC3198Y, NPN			2208606105	4	
C170/C171	Ceramic Tubular	100	pF	50 V J	3519101935	2	Q128/Q129	MPSA56, PNP			2208206113	2	
C172/C173	Mylar	0.022	uF	100 V J	3679223120	2	Q130-Q132	KTC3198Y, NPN			2208606105	3	
C174	Ceramic Tubular	560	pF	50 V J	3519681935	1	Q133	MPSA56, PNP			2208206113	1	
C175	Ceramic Tubular	680	pF	50 V J	3519681935	1	Q134	KTC3198Y, NPN			2208606105	1	
C176/C177	Ceramic Tubular	100	pF	50 V J	3519101935	2	Q135	MPSA56, PNP			2208206113	1	
C178-C181	Ceramic Tubular	560	pF	50 V J	3519561935	4	Q136	KTC3198Y, NPN			2208606105	1	
C182	Mylar	0.0056	uF	100 V J	3679562120	1	Q137/Q138	DTC114TS			2208622108	2	
C183	Electrolytic SG	47	uF	16 V M	3479347031	1	Q139	MPSA56, PNP			2208206113	1	
C184/C185	Ceramic Tubular	220	pF	50 V J	3519221935	2	Q140	KTD1302, NPN			2208606112	1	
C186	Mylar	0.0022	uF	100 V J	3679222120	1	Q141	KRA107M/DTA114YS			2238006103	1	
C187	Mylar	0.033	uF	100 V J	3679333120	1	Q142	DTC114TS			2208622108	1	
C188	Mylar	0.0022	uF	100 V J	3679222120	1	Q143	KTC3198Y, NPN			2208606105	1	
C189	Electrolytic SG	100	uF	16 V M	3479310131	1	Q144	DTC114YS			2208622106	1	
C190	Mylar	0.0056	uF	100 V J	3679562120	1	Q145	KTD1302, NPN			2208606112	1	
C191	Electrolytic SG	100	uF	25 V M	3479310141	1							
C192	Ceramic Tubular	0.1	uF	50 V Z	3519104935	1							
C193	Ceramic Tubular	100	pF	50 V J	3519101935	1							
C194	Ceramic Tubular	0.1	uF	50 V Z	3519104935	1							

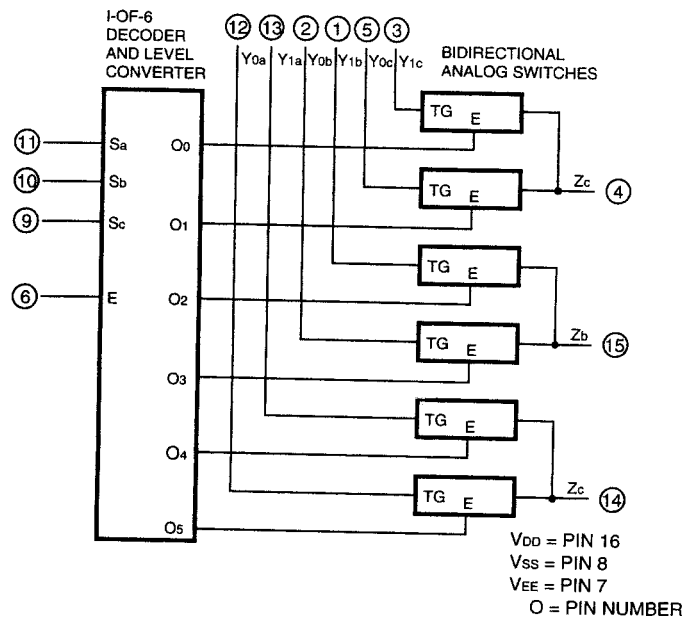
Ref. No.	Description	Parts No.	Q'ty	Version	Ref. No.	Description	Parts No.	Q'ty	Version	Ref. No.	Description	Parts No.	Q'ty	Version	Ref. No.	Description	Parts No.	Q'ty	Version	
Q146	DTC114TS	2208622108	1		R169	Metal Film	680 ohm 1/5 W J	3029681970	1	R256	Carbon Film	22 kohm 1/5 W J	3069223970	1		PCB2	ASSEMBLY P.C.BOARD FRONT			
Q147-Q157	DTC114YS	2208622106	11		R170	Carbon Film	47 kohm 1/5 W J	3069473970	1	R257	Carbon Film	5.6 kohm 1/5 W J	3069562970	1		R401	RES, Carbon Film	15 kohm 1/5 W J	3069153970	1
Q158	MPSA56, PNP	2208206113	1		R171	Carbon Film	470 kohm 1/5 W J	3069474970	1	R258	Carbon Film	33 kohm 1/5 W J	3069333970	1		R402	RES, Metal Film	1.2 kohm 1/5 W J	3029122970	1
Q159	DTC114YS	2208622106	1		R172	Carbon Film	47 kohm 1/5 W J	3069473970	1	R259/R260	Carbon Film	22 kohm 1/5 W J	3069223970	2		R403	RES, Metal Film	3.3 kohm 1/5 W J	3029332970	1
Q160	KTC2236A/KTC3205, NPN	2228407117	1		R173	Carbon Film	10 kohm 1/5 W J	3069103970	1	R261/R262	Carbon Film	100 kohm 1/5 W J	3069104970	2		R404	RES, Carbon Film	8.2 kohm 1/5 W J	3069822970	1
Q161	DTC114YS	2208622106	1		R174	Metal Film	560 ohm 1/5 W J	3029561970	1	R263/R264	Carbon Film	120 kohm 1/5 W J	3069124970	2		R405	RES, Metal Film	3.3 kohm 1/5 W J	3029332970	1
Q162	KTC2236A/KTC3205, NPN	2228407117	1		R175	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R265	Carbon Film	150 kohm 1/5 W J	3069154970	1		R406	RES, Metal Film	1.8 kohm 1/5 W J	3029182970	1
Q163	KTA1015Y/BKTA1266, PNP	2208206105	1		R176	Metal Film	3.3 kohm 1/5 W J	3029332970	1	R266	Carbon Film	120 kohm 1/5 W J	3069124970	1		R407	RES, Carbon Film	1.8 kohm 1/5 W J	3069822970	1
Q164-Q166	DTC114YS	2208622106	3		R177	Metal Film	1.5 kohm 1/5 W J	3029152970	1	R267-R269	Carbon Film	33 kohm 1/5 W J	3069333970	3		R408	RES, Metal Film	1.8 kohm 1/5 W J	3029182970	1
Q167	KTC3198Y, NPN	2208606105	1		R178	Carbon Film	47 kohm 1/5 W J	3029473970	1	R270	Metal Film	3.9 kohm 1/5 W J	3029392970	1		R409/R410	RES, Metal Film	3.3 kohm 1/5 W J	3029332970	2
Q168	KTC2236A/KTC3205, NPN	2228407117	1		R179	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R271	Metal Film	3.3 kohm 1/5 W J	3029332970	1		R411	RES, Metal Film	1.8 kohm 1/5 W J	3029182970	1
Q169	DTC114YS	2208622106	1		R180	Carbon Film	10 kohm 1/5 W J	3069103970	1	R272	Metal Film	820 ohm 1/5 W J	3029821970	1		R412-R414	RES, Metal Film	1.2 kohm 1/5 W J	3029122970	3
Q170	2SB1367Y/KTB1367, PNP	2028106109	1		R181	Carbon Film	56 kohm 1/5 W J	3069563970	1	R273	Metal Film	47 ohm 1/5 W J	3029470970	1		LED1-LED5	LED, SLR-34GC N49, Green		2381040301	5
Q171/Q172	KTC3198Y, NPN	2208606105	2		R182	Metal Film	560 ohm 1/5 W J	3029561970	1	R274/R275	Metal Film	3.3 kohm 1/5 W J	3029332970	2		LED6/LED7	LED, SLR-34URC N49, Red		2381215704	2
					R183	Carbon Film	120 ohm 1/4 W J	3069121270	1	R276	Metal Film	1.5 kohm 1/5 W J	3029152970	1		LED8/LED9	LED, SLR-34GC N49, Green		2381040301	2
					R184	Metal Film	680 ohm 1/5 W J	3029681970	1	R277	Carbon Film	10 kohm 1/5 W J	3069103970	1		CNT5F	Connector, Wafer, FFC, 17P		4428517826	1
					R185	Carbon Film	47 kohm 1/5 W J	3069473970	1	R278	Metal Film	47 ohm 1/5 W J	3029470970	1		18(SW3-13)	Switch Tact		4658004410	11
					R186	Carbon Film	10 kohm 1/5 W J	3069103970	1	R279/R280	Metal Film	3.3 kohm 1/5 W J	3029332970	2						
					R188	Carbon Film	47 kohm 1/5 W J	3069473970	1	R281/R282	Metal Film	47 ohm 1/5 W J	3029470970	2						
					R190	Carbon Film	3.9 kohm 1/5 W J	3029392970	1	R283	Metal Film	3.3 kohm 1/5 W J	3029332970	1						
					R191	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R284/R285	Metal Film	33 ohm 1/5 W J	3029330970	2						
					R192	Metal Film	2.7 kohm 1/5 W J	3029272970	1	R286	Metal Film	1 kohm 1/5 W J	3029102970	1						
					R193	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R288	Metal Film	100 ohm 1/5 W J	3029101970	1						
					R194	Carbon Film	47 kohm 1/5 W J	3069473970	1	R289/R290	Metal Film	3.3 kohm 1/5 W J	3029332970	2						
					R195	Carbon Film	18 kohm 1/5 W J	3069183970	1	R291	Carbon Film	33 kohm 1/5 W J	3069333970	1						
					R196	Metal Film	2.7 kohm 1/5 W J	3029272970	1	R292/R293	Carbon Film	6.8 kohm 1/5 W J	3069682970	2						
					R197	Metal Film	3.3 kohm 1/5 W J	3029332970	1	R294/R295	Metal Film	3.3 kohm 1/5 W J	3029332970	2						
					R198	Carbon Film	68 kohm 1/5 W J	3069683970	1	R296/R297	Carbon Film	100 kohm 1/5 W J	3069104970	2						
					R199	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R298/R299	Metal Film	33 ohm 1/5 W J	3029330970	2						
					R200	Metal Film	680 ohm 1/5 W J	3029681970	1	R300-R302	Carbon Film	100 kohm 1/5 W J	3069104970	3						
					R201	Carbon Film	68 kohm 1/5 W J	3069683970	1	R303	Carbon Film	33 kohm 1/5 W J	3069333970	1						
					R202	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R304	Carbon Film	22 kohm 1/5 W J	3069223970	1						
					R203	Carbon Film	47 kohm 1/5 W J	3069473970	1	R305	Metal Film	1.5 kohm 1/5 W J	3029152970	1						
					R204	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R306/R307	Carbon Film	6.8 kohm 1/5 W J	3069682970	2						
					R205	Carbon Film	10 kohm 1/5 W J	3069103970	1	R308-R310	Carbon Film	100 kohm 1/5 W J	3069104970	3						
					R206	Carbon Film	5.6 kohm 1/5 W J	3069562970	1	R311/R312	Carbon Film	33 kohm 1/5 W J	3069333970	2						
					R207/R208	Carbon Film	22 kohm 1/5 W J	3069223970	2	R313/R314	Carbon Film	100 kohm 1/5 W J	3069104970	2						
					R209/R210	Carbon Film	47 kohm 1/5 W J	3069473970	2	R315/R316	Metal Film	10 ohm 1/5 W J	3029100970	2						
					R211	Carbon Film	5.6 kohm 1/5 W J	3069562970	1	R317	Carbon Film	10 kohm 1/5 W J	3069103970	1						
					R212	Metal Film	560 ohm 1/5 W J	3029561970	1	R318	Carbon Film	22 kohm 1/5 W J	3069223970	1						
					R213	Metal Film	100 ohm 1/5 W J	3029101970	1	R319	Metal Film	4.7 kohm 1/5 W J	3029472970	1						
					R214	Metal Film	4.7 kohm 1/5 W J	3029472970	1	R320	Carbon Film	47 kohm 1/5 W J	3069473970	1						
					R215	Metal Film	560 ohm 1/5 W J	3029561970	1	R321	Metal Film	3.3 kohm 1/5 W J	3029332970	1						
					R216	Carbon Film	47 kohm 1/5 W J	3069473970	1	R322	Carbon Film	33 kohm 1/5 W J	3069333970	1						
					R217/R218	Metal Film	3.3 kohm 1/5 W J	3029332970	2	R323	Metal Film	10 ohm 1/5 W J	3029100970	1						
					R219-R223	Carbon Film	100 kohm 1/5 W J	3069104970	5	R324	Metal Film	4.7 ohm 1/5 W J	3029479970	1						
					R224/R225	Carbon Film	51 kohm 1/5 W J	3069513970	2	R325	Carbon Film	22 kohm 1/5 W J	3069223970	1						
					R226	Metal Film	2.2 kohm 1/5 W J	3029222970	1	R326/R327	Carbon Film	10 kohm 1/5 W J	3069103970	2						
					R227	Carbon Film	39 kohm 1/5 W J	3069393970	1	R328-R330	Metal Film	1 kohm 1/5 W J	3029102970	3						
					R228	Carbon Film	33 kohm 1/5 W J	3069333970	1	R331	Metal Film	68 ohm 2W J	3029680570	1						
					R229	Carbon Film	12 kohm 1/5 W J	3069123970	1	R332	Carbon Film	47 kohm 1/5 W J	3069473970	1						
					R230	Carbon Film	43 kohm 1/5 W J	3069433970	1	R333	Metal Film	470 ohm 1/5 W J	3029471970	1						
					R231	Carbon Film	33 kohm 1/5 W J	3069333970	1	R334	Carbon Film	22 kohm 1/5 W J	3069223970	1						
					R232	Carbon Film	22 kohm 1/5 W J	3069223970	1	R335	Metal Film	680 ohm 1/5 W J	3029681970	1						
					R233	Metal Film	2.2 kohm 1/5 W J	3029222970	1	R336	Metal Film	4.7 kohm 1/5 W J	3029472970	1						
					R234	Carbon Film	43 kohm 1/5 W J	3069433970	1	R337	Metal Film	220 ohm 1/5 W J	3029221970	1						
					R235	Carbon Film	47 kohm 1/5 W J	3069473970	1	R338	Metal Film	470 ohm 1/5 W J	3029471970	1						
					R236	Carbon Film	43 kohm 1/5 W J	3069433970	1	R339	Metal Film	47 ohm 1/5 W J	3029470970	1						
					R237	Carbon Film	22 kohm 1/5 W J	3069223970	1											
					R238	Carbon Film	27 kohm 1/5 W J	3069273970	1											
					R239	Carbon Film	47 kohm 1/5 W J	3069473970	1											
					R240	Carbon Film	68 kohm 1/5 W J	3069683970	1											
					R241	Carbon Film	120 kohm 1/5 W J	3069124970	1											
					R242	Carbon Film	100 kohm 1/5 W J	3069104970	1											
					R243	Carbon Film	91 kohm 1/5 W J	3069913970	1											
					R244	Carbon Film	5.6 kohm 1/5 W J	3069562970	1											
					R245	Carbon Film	120 kohm 1/5 W J	3069124970	1											
					R246	Carbon Film	150 kohm 1/5 W J	3069154970	1											
					R247	Carbon Film	100 kohm 1/5 W J	3069104970	1											
					R248	Carbon Film	10 kohm 1/5 W J	3069103970	1											
					R249	Carbon Film	22 kohm 1/5 W J	3069223970	1											
					R250	Carbon Film	33 kohm 1/5 W J	3069333970	1											
					R251	Carbon Film	22 kohm 1/5 W J	3069223970	1											
					R252	Carbon Film	33 kohm 1/5 W J	3069333970	1											
					R253	Carbon Film	39 kohm 1/5 W J	3069393970	1											
					R254	Carbon Film	22 kohm 1/5 W J	3069223970	1											
					R255	Carbon Film	27 kohm 1/5 W J	3069273970	1					</						

IC FUNCTIONAL BLOCK DIAGRAM

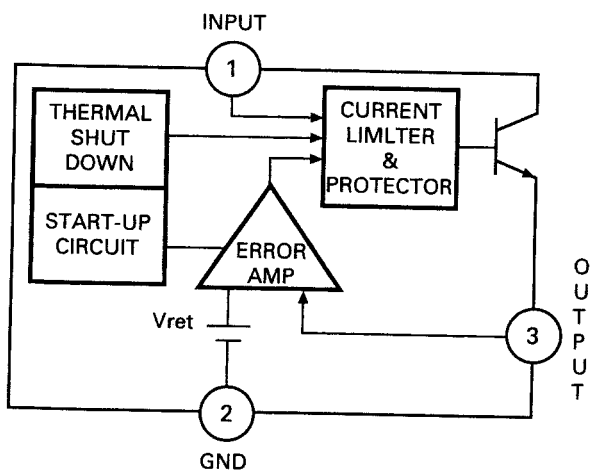
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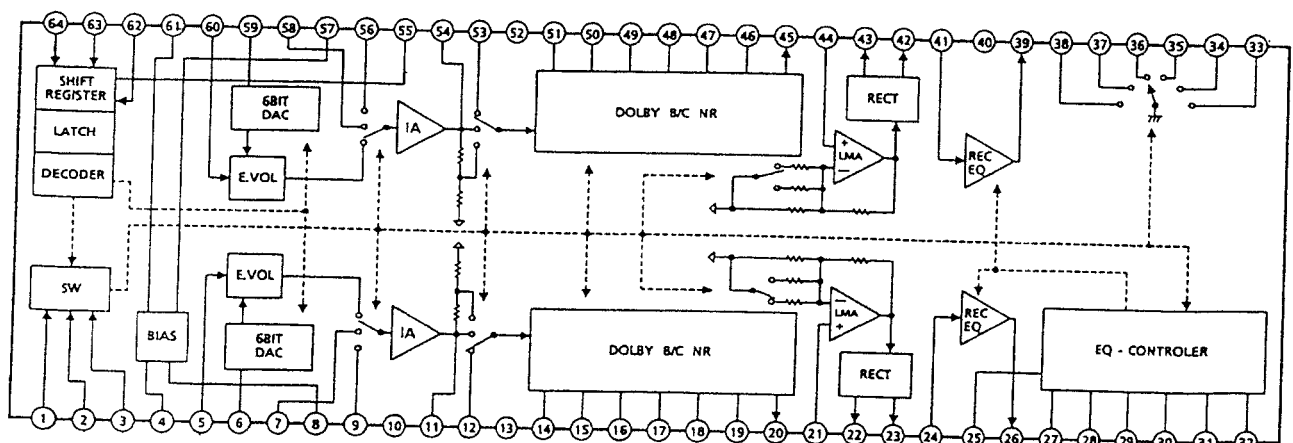
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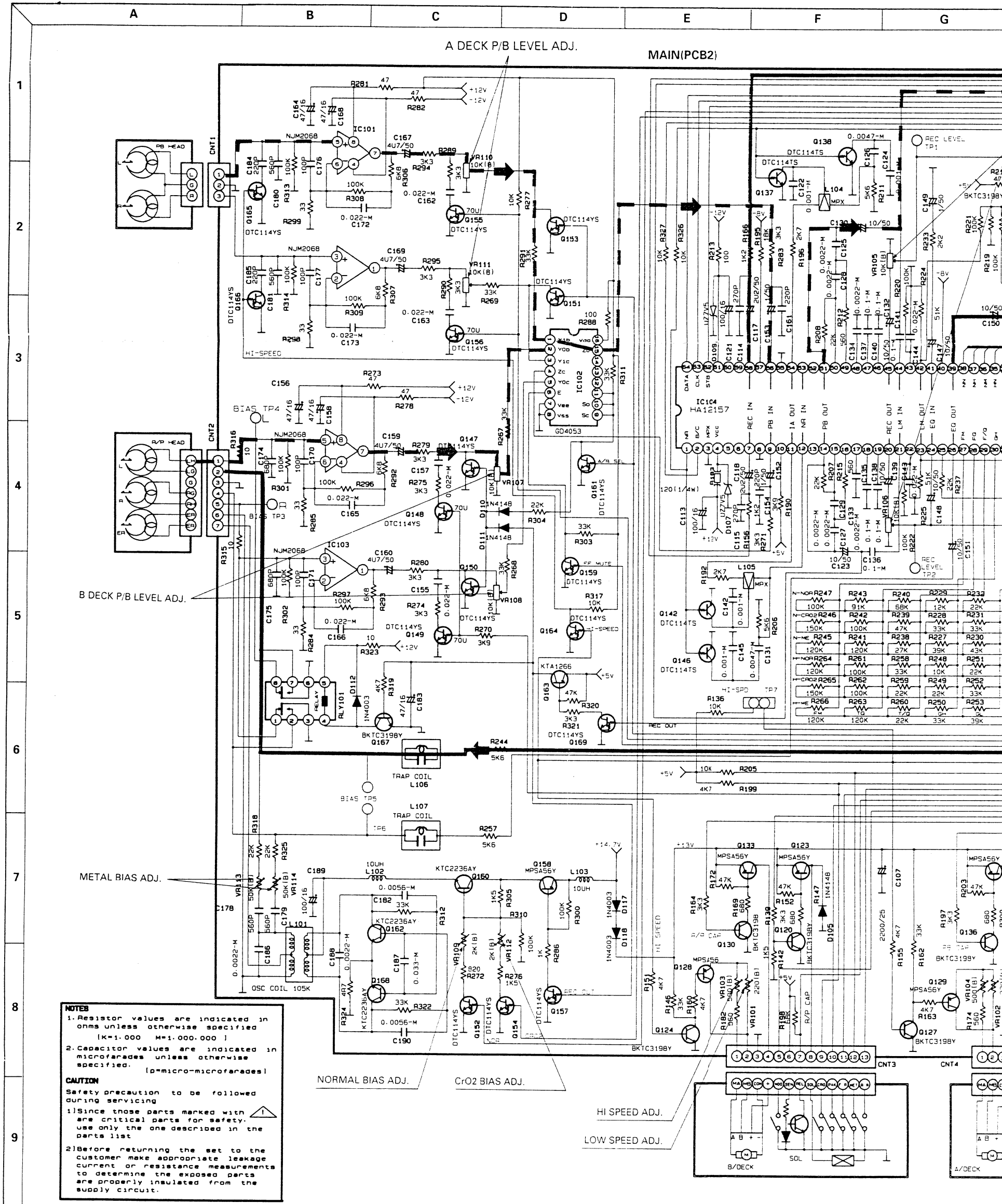
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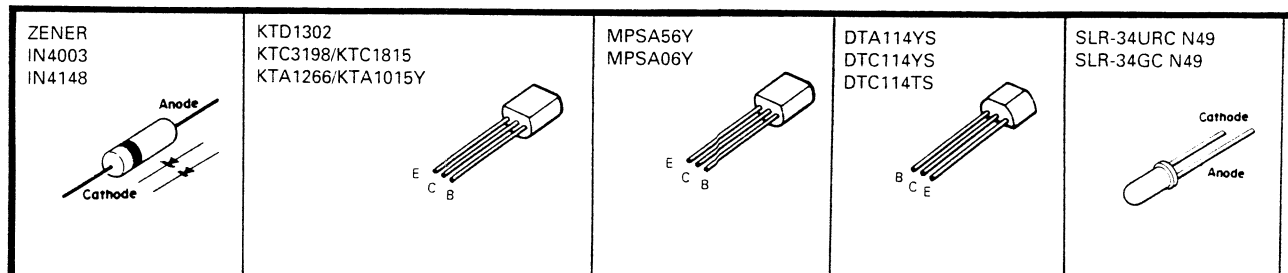
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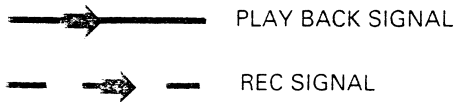


SCHEMATIC DIAGRAM



PIN CONNECTION OF DIODES, TRANSISTORS AND ICs



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